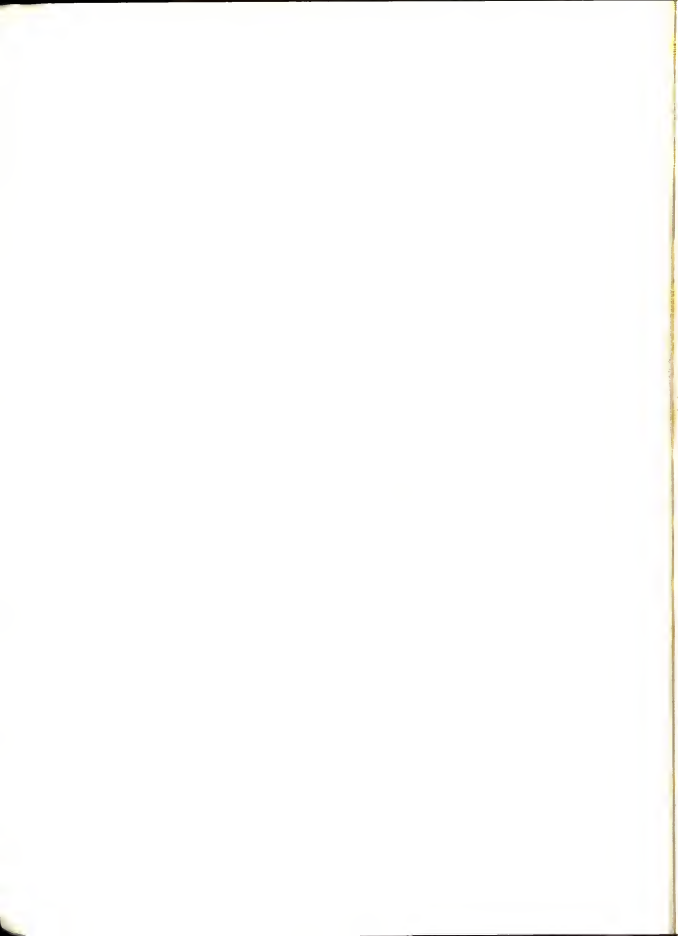


Study Guide to Accompany Dennis Coon's
Introduction to Psychology
Exploration and Application
Second Edition



Prepared by Faren Akins



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Exploration and Application
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WEST PUBLISHING COMPANY
St. Paul New York Los Angeles San Francisco

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50 West Kellogg Blvd.
P.O. Box 3526
St. Paul MN 55165

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Printed in the United States of America
ISBN: 0-8299-0304-6

4th Reprint—1981

Instructions to the student

Each chapter of the *Study Guide* is divided into five sections. The first two sections (Terms and Concepts-Important Individuals) provide you with a listing of key items from the text.

The Programmed Review is designed to give you immediate feedback on your knowledge of the material in the text. You should write the correct word or phrase in the blank space provided. Later you can check the Answer Section in the back of this book to evaluate your accuracy. The Programmed Review section also provides you with a handy study guide. In the parenthesis to the right of each question number, the page of the text on which the correct answer to that question appears. You can then instantly find the page of the text which deals with each question in the *Study Guide* when you are reviewing.

The Self Test section provides you with sample objective test items. Circle or fill in the appropriate answer to each item. Then check your answers with those in the Answer Section.

The Essay Question section provides you with more sample test items. They will help in preparing you for essay-type examinations. Hopefully, they will also help you to organize some of your thoughts about topics from the text.

Preface

Welcome to the real world of psychology and the *Study Guide* which accompanies Introduction to Psychology: Exploration and Applications. It is hoped that the student manual will help you in mastering the principles presented in the text and to stimulate your interests in the field of psychology.

The preparation of the workbook and text was truly unique. Prior to publication they were actually used in teaching an introductory psychology course. This helped the authors in refining their ideas and presentation and better assured that the material presented was both clear and genuinely interesting. In using the *Study Guide* you may find the comments of previous students helpful. Here are some of the things they had to say about the *Study Guide*:

I found that the most effective way for me to use the *Study Guide* was to first skim through the text chapter to determine the drift and some of the highlights to be covered.

Next, after a short break, I studied in detail the text, answering the *Study Guide* review questions as I went through the material. In addition, I underlined all the terms and concepts found in the list and/or the review questions.

After a day, and usually after in-class discussion had occurred, I reread the chapter, noting the underlined material especially, and then answered the self test questions.

Another student commented:

I used it right along with reading the text. It helped me comprehend the chapters.

I would read over the workbook after I answered all the questions. It is very helpful for reviewing for tests since it highlights all the important ideas of the chapter. By reading over the chapter reviews, one knows what is important and what to study.

Other comments included:

I studied a particular chapter and underlined what seemed to be important. I would then try to answer the *Study Guide* as best I could. Whatever I could not answer properly, I would go back, reread, and try to answer again.

And finally:

I found the workbook an excellent guide for studying. I worked on the assignments after I had read the chapter text, and found that it helped me most by covering the important concepts and terms, allowing me to study more effectively.

The programmed review section of the workbook was written in a way that allowed for a skim-over review reading of the chapter, while answering the question, covering the key points in a chronological order. When reviewing the chapter in this way, I found that I remembered more, and how each point related to the other.

The self test section of the workbook proved to be the final learning check. The challenge was to correctly answer the questions, relying on memory of what was learned in the chapter. The questions that applied the concepts of the text, requiring independent problem solving, I found to be most helpful in checking learning.

The essay questions were a special challenge. They required thought and knowledge of the chapter, independent from the examples in the text. The questions were helpful for discussion of the concepts as well.

CONTENTS

| | | | |
|------------|--|-----|--|
| | UNIT 1 INTRODUCTION TO PSYCHOLOGY | | |
| Chapter 1 | An Introduction to Psychology and Psychologists | 1 | |
| 2 | Research Methods in Psychology | 11 | |
| | UNIT 2 FOUNDATIONS OF HUMAN CONSCIOUSNESS | | |
| Chapter 3 | The Biology of Behavior and Conscious Experience | 21 | |
| 4 | The Sensory World and Reality | 37 | |
| 5 | Perception | 51 | |
| 6 | Altered States of Consciousness | 63 | |
| 7 | Sleep and Dreaming | 75 | |
| | UNIT 3 LEARNING, MEMORY, AND THINKING | | |
| Chapter 8 | Conditioning | 87 | |
| 9 | Learning | 97 | |
| 10 | Memory | 109 | |
| 11 | Thinking, Problem-Solving, and Creativity | 119 | |
| | UNIT 4 ACTIONS AND REACTIONS | | |
| Chapter 12 | Motivation | 131 | |
| 13 | Emotion | 145 | |
| 14 | Frustration, Conflict, Stress, and Defense | 157 | |
| | UNIT 5 HUMAN DEVELOPMENT AND PERSONALITY | | |
| Chapter 15 | Human Development | 167 | |
| 16 | Challenges of Development: The Cycle of Life | 181 | |
| 17 | Intelligence | 195 | |
| 18 | Personality: Traits, Types, and Testing | 205 | |
| 19 | Theories of Personality | 217 | |
| | UNIT 6 ABNORMAL BEHAVIOR AND PSYCHOTHERAPY | | |
| Chapter 20 | Deviance and Disorder: The Unhealthy Personality | 231 | |
| 21 | Psychosis | 245 | |
| 22 | Insight Therapy | 259 | |
| 23 | Behavior Modification | 271 | |
| | UNIT 7 SELF AND OTHERS | | |
| Chapter 24 | Human Sexuality | 281 | |
| 25 | Social Psychology I | 295 | |
| 26 | Social Psychology II | 307 | |
| | Statistical Appendix | 319 | |
| | Answer Section | 327 | |

An Introduction to Psychology ¹ and Psychologists

TERMS AND CONCEPTS

psychology
empirical
anthropomorphic fallacy
introspection
structuralism
functionalism
natural selection
behaviorism
stimulus-response psychology
conditioned response
gestalt psychology
psychoanalytic psychology

humanistic psychology
cognitive psychology
self-actualization
pure research
applied research
American Psychological Association (APA)
pseudo-psychologies
palmistry
phrenology
graphology
astrology

IMPORTANT INDIVIDUALS

Wilhelm Wundt
William James
Charles Darwin
John Dewey
John Watson
Ivan Pavlov

B. F. Skinner
Max Wertheimer
Sigmund Freud
Carl Rogers
Abraham Maslow
Franz Gall

PROGRAMMED REVIEW

1. (p. 10) Psychology is the scientific study of the behavior of organisms.

2. (p. 10) The goals of psychology are to describe, understand, predict, and control behavior.
3. (p. 10) Facts or information gained through direct observation and measurement are called empirical evidence.
4. (p. 10) Whenever possible, psychologists settle differences by experimentation.
5. (p. 12) Psychology has been described as the "almost science" because scientific study of humans is not yet possible in all areas of research. Sometimes questions go unanswered because of moral or practical limitations.
6. (p. 12) More frequently, psychological questions remain unanswered because a suitable method does not yet exist.
7. (p. 12) Psychologists are interested in the natural laws governing the behavior of any living creature. In fact, comparative psychologists spend their entire career comparing the behavior of different species.
8. (p. 12) Attributing human thoughts, feelings, and motives to animals constitutes the anthropomorphic fallacy.
9. (p. 13) Animals are sometimes used in obtaining information pertinent to humans. In fact, animals serving as models may sometimes provide the only information available on a particular topic.
10. (p. 13) Useful knowledge in psychology begins with accurate description. But this alone fails to answer important why questions.
11. (p. 13) Prediction is possible whenever there is a degree of consistency to behavior.
12. (p. 14) To most psychologists "control" simply means altering conditions that influence behavior in predictable ways.
13. (p. 14) Psychology emerged from the accumulation of a body of thought known as philosophy.
14. (p. 14) Psychology as a science is less than 100 years old.
15. (p. 15) Psychology's history began in the year 1879 at Leipzig Germany.
16. (p. 14) The father of psychology is Wundt, who established the first psychological laboratory.
17. (p. 15) Wundt hoped to discover the structure of conscious sensory experience by analyzing it into its elements.

18. (p. 15) Wundt developed a method called introspection.
19. (p. 15) This technique is a self-observation or "looking inward" combined with separation into elements.
20. (p. 15) William James was interested in how consciousness flows to adapt us to changing demands.
21. (p. 15) James considered consciousness an on-going process, not a collection of building blocks.
22. (p. 15) The functionalists were particularly influenced by Darwin and his theory of evolution.
23. (p. 15) Darwin showed that organisms survive through adaptation. The functionalists, then, sought to understand how thoughts, habits, and emotions serve as psychological tools for human adaptation.
24. (p. 15) A physical feature which functions to adapt an animal to its environment is retained through natural selection.
25. (p. 16) Edward psychology is a direct outgrowth of functionalism.
26. (p. 16) Doll was a functionalist particularly interested in the process of education.
27. (p. 16) Functionalism also spurred the development of behavioral psychology.
28. (p. 16) Watson was part of the behavioristic school of psychology or stimulus-response psychology.
29. (p. 16) Watson adopted the conditioned response, a concept introduced by Pavlov as a means of explaining most behavior.
30. (p. 16) One of the best known and most influential modern behaviorists is B.F. Skinner.
31. (p. 16) Skinner states that behavior is shaped and maintained by its consequences.
32. (p. 16) The majority of modern psychologists tend to agree with Skinner that most human behavior is based on various forms of learning.
33. (p. 16) A particularly valuable product of behavioristic thought is behavior modification, a form of therapy based upon learning principles.
34. (p. 16) The gestalt school of thought was founded by Wertheimer.
35. (p. 16) The gestalt school thought it was a mistake to try to analyze psychological phenomena. They sought to study experiences as a whole.

36. (p. 16) They emphasized the relationship between elements of behavior.
37. (p. 16) The gestaltists were fascinated by perceptual illusions such as the phi phenomenon, the illusion of apparent motion.
38. (p. 17) Because of the emphasis on "wholes" rather than "pieces," the gestalt viewpoint is particularly influential in the areas of perception and personality.
39. (p. 17) Psychoanalytic psychology was founded by Freud.
40. (p. 17) Freud felt that mental experience was like an iceberg. There are vast areas of unconscious thoughts, conflicts, and desires, which cannot be experienced directly but which continue to influence behavior.
41. (p. 17) Because these thoughts are usually of a sexual or aggressive nature they are threatening and therefore repressed (actively held out of consciousness).
42. (p. 17) Freud gave many contributions to the field of psychology. One of these was his insistence that all thoughts, emotions, and actions are determined.
43. (p. 17) Another contribution was his emphasis on the importance of childhood in later personality development.
44. (p. 17) Also, Freud developed a method of psychotherapy called psychoanalysis.
45. (p. 17) Freud's ideas have been enlarged, altered, and adapted by many theorists known as neo-Freudians.
46. (p. 17) The third force in psychology is called humanism. The other two forces are psychoanalytic psychology and behaviorism.
47. (p. 18) Humanism, unlike psychoanalytic psychology or behaviorism stresses free will rather than determinism.
48. (p. 18) Humanists stress the importance of psychological needs.
49. (p. 18) Humanists emphasize the importance of such subjective factors as one's self image, self evaluation, and frame of reference.
50. (p. 18) The concept of self actualization, developing one's full potential, is one of the distinctive contributions of humanism.
51. (p. 18) One particularly important new approach in the field has been cognitive psychology, which centers on perception, thinking, language, problem-solving, and creativity.

52. (p. 18) Perhaps the most meaningful division in psychology today is the distinction between scientific and non-scientific approaches.
53. (p. 19) Psychologists usually have a Master's degree or a Ph.D. Those interested in human emotional problems and their treatment usually specialize in clinical psychology.
54. (p. 19) Most clinical psychologists have a Ph.D. from a school accredited by the American Psychological Association (APA).
55. (p. 19) A psychiatrist, on the other hand, has a medical degree, with a specialty in personality, abnormal behavior, or psychotherapy.
56. (p. 19) A psychoanalyst is a clinical psychologist or psychiatrist extensively trained in the theories of Freud and his followers.
57. (p. 20) To work as a clinical psychologist, an individual must have a license issued by a state examining board.
58. (p. 20) Psychologists are expected to follow professional codes established by the APA which stress: (list the three aspects)
accurate representation of work and qualifications
confidentiality in handling personal information in work
protection of the welfare of those involved
59. (p. 21) Approximately 30 percent of psychologists are clinicians.
60. (p. 21) Over 50 percent of psychologists are employed full time by educational institutions.
61. (p. 21) Research psychologists may conduct pure research, seeking knowledge for the sake of knowledge, or applied research, in which immediate uses are planned for the information gained.
62. (p. 21) There are at least eight non-clinical sub-areas of psychology. Be familiar with their names and major interests. List below the names of these areas.
- | | |
|--------------------|----------------------|
| <u>Industrial</u> | <u>Developmental</u> |
| <u>Educational</u> | <u>Engineering</u> |
| <u>Consumer</u> | <u>Medical</u> |
| <u>School</u> | <u>Environmental</u> |
63. (p. 24) Maslow studied the lives of people who lived creatively and made full use of their potential. He referred to this tendency as self-actualization.

64. (p. 24) Maslow described eight different characteristics of self-actualizers. List them below.
- Spontaneity Autonomy
Privacy Continuity
Spontaneity Imagination
Privacy Respect for others
65. (p. 26) Astrology is an example of pseudo-psychology, that is, dubious and unfounded systems superficially resembling psychology.
66. (p. 26) Palmistry claims that lines in the hand are indicators of personality and a person's future.
67. (p. 26) Franz Gall popularized Phrenology, the notion that personality traits could be determined by bumps on a person's head.
68. (p. 26) Graphology postulates that personality is revealed by handwriting. This technique is widely used for job placement and advancement in Europe and by at least 500 companies in this country.
69. (p. 26) These uses are somewhat distressing to psychologists because studies show that graphologists score close to zero on careful tests of accuracy in rating personality.
70. (p. 27) All pseudo-psychologies are subject to the fallacy of confirmation bias in which a person remembers or notices things that confirm their expectations and forget the rest.

SELF TEST

- Indicate (by circling) which of the following are goals of psychology.
 - ☒ understand behavior
 - ☒ predict behavior
 - ☒ control behavior
 - ☐ observe behavior
- Psychology is the scientific study of the _____ of organisms.
 - ☐ mind
 - ☒ behavior
 - ☐ physiology
 - ☐ social organization
- Not all human behavior is subject to study. Indicate why by circling the problems which limit research.
 - ☐ limitations on research funds
 - ☐ lack of interest among psychologists
 - ☒ moral limitations
 - ☐ practical limitations
 - ☐ lack of suitable methods

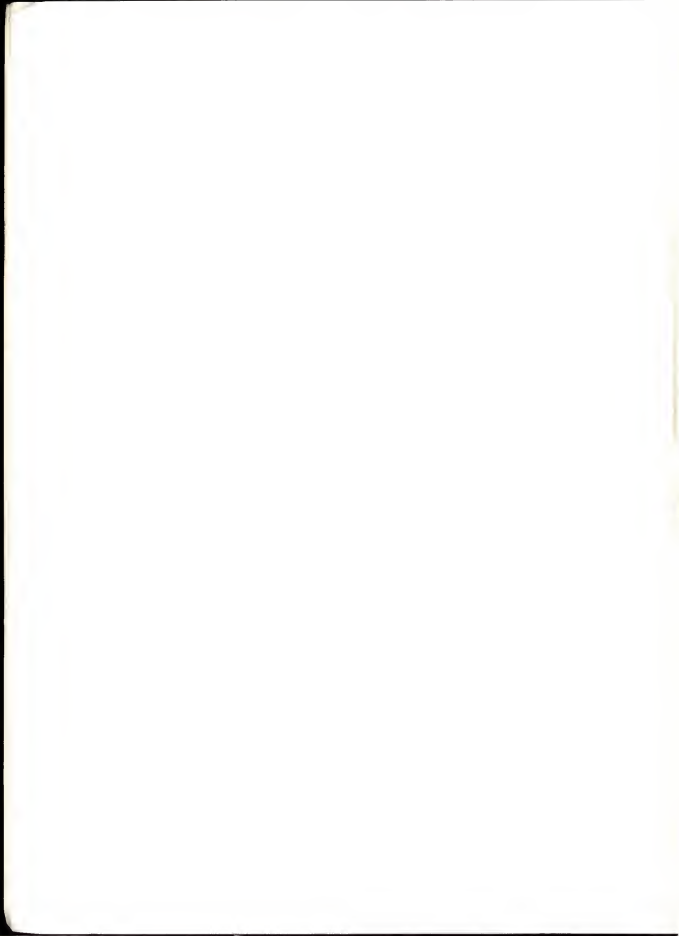
4. Which of the following is an example of an anthropomorphic statement?
 - a. Johnny wanted the dog to come to him.
 - ☒ b. The dog wanted Johnny to come to him.
 - c. Johnny looked at the dog.
 - d. The dog looked at Johnny.
5. The father of psychology is _____.
 - a. Freud
 - ☒ b. Wundt
 - c. Aristotle
 - d. Plato
6. The goal of Wundt was
 - a. to understand how humans perceive thoughts.
 - b. to discover the elements composing the structure of sensory experience.
 - c. to compare animal and human behaviors.
 - d. to apply principles of chemistry and physics to the mind.
7. Wundt was interested in the _____ of the mind.
 - ☒ a. structure
 - b. function
 - c. physiology
 - d. anatomy
8. James was interested in the _____ of the mind.
 - a. structure
 - ☒ b. function
 - c. physiology
 - d. anatomy
9. Darwin was influential to which early movement in psychology?
 - a. structuralism
 - ☒ b. functionalism
 - c. behaviorism
 - d. gestalt psychology
10. True-False. Natural selection was a concept important to the structuralist school of thought.
11. What field is a direct outgrowth of functionalism?
 - a. comparative psychology
 - b. physiological psychology
 - ☒ c. educational psychology
 - d. developmental psychology
12. Which person is most closely associated with the behaviorist school of psychology?
 - a. James
 - b. Freud
 - ☒ c. Watson
 - d. Wundt

13. List three contributions of Freud to the field of psychology.
-
14. "In order to understand human behavior we must take into account what the environment does to an organism before and after it responds." This quote defines the position of which of the following?
- a. James
 - b. Freud
 - c. Skinner
 - d. Wundt
15. The quote "The child is father to man" reflects the emphasis of which of the following?
- a. Freud
 - b. Wundt
 - c. Pavlov
 - d. Wertheimer
16. Circle the school(s) of thought which emphasize that man's behavior is determined.
- a. psychoanalytic psychology
 - b. behaviorism
 - c. stimulus-response psychology
 - d. humanism
17. True-False. Humanism is a science with interests in research with animals and laboratory studies of behavior.
18. List the three aspects of the professional code established by the APA.
-
19. What percentage of psychologists are clinicians?
- a. 10%
 - b. 20%
 - c. 30%
 - d. 40%
20. What percentage of psychologists are employed full-time by educational institutions?
- a. 20%
 - b. 30%
 - c. 40%
 - d. 50%
21. True-False. The majority of psychologists today still practice the theories of Sigmund Freud.
22. Indicate (by circling) which of the following attributes characterize self-actualizers.

- a. continued freshness of appreciation
 - b. profound interpersonal relationships
 - c. ability to criticize others
 - d. fellowship with mankind
 - e. outstanding learning and memory processes
 - f. autonomy
 - g. efficient perception of others
 - h. external locus of control
 - i. spontaneity
 - j. comfortable acceptance of self, others, nature
 - k. well developed physique
 - l. problem-centering
23. True-False. Pseudo-psychologies are legitimate sub-disciplines within psychology.
24. True-False. The more specific birth record information one can provide, the more accurate will be the horoscope computed.
25. Indicate (by circling) which of the following are subject to the fallacy of positive instances.
- | | |
|-----------------|---------------|
| a. astrology | e. phrenology |
| b. graphology | f. morphology |
| c. physiology | g. ethnology |
| d. epidemiology | h. palmistry |

ESSAY QUESTIONS

1. Contrast the similarities and differences between structuralists, functionalists, behaviorists, psychoanalytic psychologists, humanists, and gestalt psychologists. Who were the originators of these schools of psychology?
2. Discuss the similarities and differences between psychologists, psychiatrists, and psychoanalysts.
3. Discuss the characteristics of self-actualizers as described by Maslow. How well do you fit his description?
4. What are some examples of pseudo-psychologies? Why do they seem to work? How are they different from psychology?



Research Methods in Psychology 2

TERMS AND CONCEPTS

naturalistic observation
correlation
coefficient of correlation
 perfect positive
 perfect negative
hypothesis
experimental group
control group
independent variable
dependent variable

extraneous variable
placebo
endorphins
double-blind procedure
clinical method
case study
survey method
representative sample
experimenter effect

IMPORTANT INDIVIDUALS

Jane van Lawick-Goodall
James Bryan and Mary Test
Robert Rosenthal

J. M. Harlow
Phillip Zimbardo

PROGRAMMED REVIEW

1. (p. 30) To avoid the trap of faulty observation, psychologists use the scientific method based on the following five steps:
1. observation
 2. Defining a problem
 3. proposing a hypothesis
 4. experimentation
 5. Theory formulation

2. (p. 30) A hypothesis is a description or explanation that remains tentative or exploratory since it has not yet been adequately tested.
3. (p. 30) A good example of how to apply the five steps of the scientific method is seen in the story of Blatant Blatant, the wonder horse.
4. (p. 31) When we actively observe subjects in their natural setting, we are making naturalistic observations.
5. (p. 31) Jane van Lawick-Goodall has conducted natural observations of chimpanzees and discovered that they, like man, use tools to obtain some goals.
6. (p. 32) One of the advantages of naturalistic observation is that the behavior being studied has not been tampered with by outside influences.
7. (p. 32) One disadvantage of naturalistic observation is that the presence of an observer may change the behavior of the respondent.
8. (p. 32) This problem can be minimized by blind the observer, as in the work of Arnold Gesell who determined what age children developed certain abilities by observing them through one-way screens.
9. (p. 32) A closely related problem is observer bias, where the observer's own attitudes, values, or beliefs can influence the observations gathered.
10. (p. 32) The greatest limitation of naturalistic observation is summarized by the phrase, "correlation does not prove causation." That is, it does not allow a clear determination of the causes of the observed events.
11. (p. 33) Correlations refer to two observations or events that co-
relate (vary together in some orderly fashion).
12. (p. 33) Correlations can be expressed as a coefficient of correlation, which is a number that falls between +1.00 and -1.00.
13. (p. 33) If the coefficient of correlation is zero or close to it, this indicates a weak or non-existent relationship (such as between shoe size and intelligence).
14. (p. 33) A correlation of +1.00 is called a perfect positive correlation and occurs when an increase in one factor is accompanied by an increase in another.
15. (p. 33) In a perfect negative correlation, expressed numerically as -1.00, increases in the first measure are associated with decreases in the second.
16. (p. 33) While perfect correlations are rare, we can say that the closer the correlation coefficient is to this, the stronger the relationship.

17. (p. 34) The simplest psychological experiment is based on two groups of subjects.
18. (p. 34) The two groups used are called the experimental group and the control group.
19. (p. 34) A variable is anything which can change (vary) and which may affect the behavior of subjects.
20. (p. 34) The experimental group is exposed to an independent variable, while the control group is not.
21. (p. 34) The control group is needed in an experiment to allow us to compare differences between the experimental group that is exposed to the independent variable with subjects not exposed to this factor. Thus the control group serves as a point of comparison.
22. (p. 34) The dependent variable is what is measured in an experiment. This will be different between the two groups if the independent variable did have an effect on the experimental group's performance.
23. (p. 34) Any variables that could influence the behavior of subjects besides the independent variable are called extraneous variables.
24. (p. 35) Differences in personal characteristics of subjects that are extraneous to the experiment are examples of extraneous variables.
25. (p. 34) This type of extraneous variable can be eliminated by randomly assigning subjects to the two groups used in the experiment.
26. (p. 35) Thus, if we have controlled all extraneous variables and the two groups differ in the value of the dependent variable, we can say this was due to the influence of the independent variable.
27. (p. 35) An alternative to the laboratory experiment is the field experiment, illustrated by the work of James Bryan and Mary Test.
28. (p. 35) A placebo is a fake pill or injection.
29. (p. 36) Placebos can have a tremendous psychological impact. For example, one study showed that injections of saline solution had 20 percent of the effectiveness of morphine in reducing pain for hospital patients.
30. (p. 36) Although this effect is not entirely understood, recent experiments relate it to the release of brain chemicals called endorphins, which are similar in effect to opiate drugs.
31. (p. 36) To control for placebo effects, a psychologist doing drug research usually employs a double-blind procedure.

32. (p. 36) This means that the subjects are blind as to whether or not they received the drug and the experimenter is blind as to whether he is administering the drug or a placebo to any particular subject.
33. (p. 36) Human subjects are very sensitive to hints from an experimenter about what is expected from them. This may produce the experimenter effect, which causes a powerful influence on a subject's behavior.
34. (p. 36) This phenomenon was demonstrated by giving students rats from the same litter to be tested, but labelled male - female or male - male.
35. (p. 36) Testing results did show the male - female labelled rats to be faster runners than the male - male rats, although there were no differences between the rats.
36. (p. 36) Rosenthal demonstrated this phenomenon in airmen trainees assigned to classes labelled high - ability.
37. (p. 36) These students did show substantially improved math scores, illustrating that their teacher's expectations created a self - fulfilling prophecy.
38. (p. 37) The clinical method employs case studies, which are in-depth studies of a single subject.
39. (p. 37) Case studies may sometimes be thought of as natural experiments as in the story of Phineas Gage reported by J. M. Harlow.
40. (p. 37) Phineas Gage suffered an accidental brain lesion, the destruction of frontal brain matter.
41. (p. 38) Another classic psychology case study is The Three Faces of Eve. Eve demonstrated multiple personality in the form of Eve White, Eve Black, and Jane.
42. (p. 38) In the survey method, a representative sample of people are asked a carefully worded series of questions.
43. (p. 38) Modern surveys like the Gallup and Harris polls are examples of this method.
44. (p. 38) Kinsey famous surveys of human sexual behavior are another example of this technique.
45. (p. 41) When reading psychological claims in the popular press, there are several helpful points to aid in evaluating their truthfulness. One is to be skeptical. Since psychological reports often have a definite bias, you must be a critical thinker.

46. (p. 41) This point is illustrated by the critical thinking of Martin Gardner in exploring demo-optical perception.
47. (p. 42) Another helpful suggestion is to consider the source of information. Claims made by an individual or company intent on selling a product often reflect the profit motive more than objective truth.
48. (p. 42) One factor that should always be considered is, "Was there a control group?" It is not always possible to determine if an event or situation really does have a meaningful impact unless there is a frame of reference for comparison.
49. (p. 42) Looking for errors in distinguishing correlation and causation is also important. As we know, it is dangerous to assume that because two factors correlate, one factor caused the other.
50. (p. 43) A fifth suggestion is to distinguish between observation and inference. What we see does not always support what we think this must mean. Assuming that someone is sad because they are crying is an example of this (perhaps they are peeling onions).
51. (p. 43) Beware of over-simplification; especially those motivated by monetary gains. Courses, programs, or products that claim rapid or immediate gains or success should be suspect.
52. (p. 43) A final tip is to remember that "for example" is no proof. The fact that something appears to be beneficial for one individual does not necessarily mean it will be equally helpful for everyone.
53. (p. 44) Experiments such as those conducted by Phillip Zimbardo to investigate the effects of imprisonment have raised new questions about the ethics of psychological research. Researchers must now be particularly sensitive to: use of deception, invasion of privacy, and lasting harm.

SELF TEST

1. Indicate (by circling) which of the following are steps which form the scientific method.
- | | |
|---------------------------|---------------------------|
| a. defining a problem | f. casual analysis |
| b. being sceptical | g. incubation of ideas |
| c. theory formulation | h. experimentation |
| d. test-retest hypotheses | i. actualization |
| e. observation | j. proposing a hypothesis |
2. Two observations or events that vary together in some orderly fashion are said to be
- systematized.
 - synchronized.
 - correlated.
 - causally determined.

3. Research psychologists sometimes actively observe subjects in their native habitats. Such work involves primarily
 - a. casual observations.
 - ☒ b. naturalistic observations.
 - c. experimental manipulations.
 - d. common sense.
4. A good example of the naturalistic observation technique is the work of _____, who has been observing chimpanzees in Tanzania since 1960.
 - ☒ a. van Lawick-Goodall
 - b. Harlow
 - c. Helmholtz
 - d. Rosenthal
5. True-False. A negative coefficient of correlation means that two events or observations do not systematically vary together since there is no positive relationship.
6. True-False. The presence of an observer may change the behavior of the observed.
7. True-False. Naturalistic observation does not permit a clear determination of causes, only correlations.
8. True-False. Correlation proves causation.
9. When an experiment is conducted, it is arranged to test the validity of a _____.
 - a. proposition
 - ☒ b. hypothesis
 - c. common sense
 - d. theory
10. In an experiment, the variable to which only the experimental group is exposed is called the _____ variable.
 - a. dependent
 - b. extraneous
 - ☒ c. independent
 - d. experimental
11. Name the two basic groups used in any experiment.

12. True-False. Field experiments usually do not provide objective, empirical data because they cannot be done in an actual laboratory under highly controlled conditions.
13. What is the purpose and use of the control group in an experiment?

14. The _____ variable is what is measured in an experiment to determine the effects of the _____ variable.
- dependent, dependent
 - independent, dependent
 - ☒ dependent, independent
 - independent, independent
15. Conditions which vary across experimental and control groups such as sex, intelligence, etc., but which are not of interest in the experiment, are called _____ variables.
- independent
 - dependent
 - ☒ extraneous
 - personal
16. True-False. Differences in the personal characteristics of subjects that are extraneous to the experiment can be eliminated by randomly assigning subjects to the experimental and control groups.
17. A _____ is a fake pill or injection.
- sham
 - pseudo
 - neo
 - ☒ placebo
18. Define the placebo effect.
- _____
- _____
19. What is the procedure most typically employed to control for placebo effects?
- randomization
 - extraneous analysis
 - controlled subject selection
 - ☒ double-blind testing
20. A(n) _____ is an in-depth focus on all aspects of a single subject.
- naturalistic observation
 - controlled experiment
 - ☒ case study
 - casual observation
21. J. M. Harlow offered a classic example of the natural experiment. He reported the case of Phineas Gage, a victim of an accidental _____.
- ☒ frontal lobotomy
 - anatomical diffusion
 - cerebral contusion
 - cortical ablation

22. The classic case study of the suburban housewife possessing multiple personalities involved which of the following?
- a. Eve White
 - b. Jane Purso
 - c. Jane Black
 - d. Eve Purso
23. The _____ involves asking a representative sample of people a carefully worded series of questions.
- a. experimental method
 - b. clinical method
 - c. observational method
 - d. survey method
24. ~~True-False~~. Modern surveys like the Gallup and Harris polls are frequently inaccurate.
25. _____ is the out-dated theory that personality is revealed by bumps on the skull.
- a. astrology
 - b. palmistry
 - c. phenomenology
 - d. phrenology
26. Phrenology was popularized during the 19th century by _____.
- a. Kinsey
 - b. Helmholtz
 - c. Gall
 - d. Harlow
27. ~~True-False~~. Graphology is widely used for job placement and advancement in Europe and by at least 500 companies in the United States.
28. ~~True-False~~. Studies have shown that graphologists score close to 100% on careful tests of accuracy in rating personality.
29. The _____ of _____ is the logical fallacy in which a person remembers or notices things that confirm his/her expectations and forgets the rest.
30. List four pseudo-psychologies which were reviewed in your text.
- _____

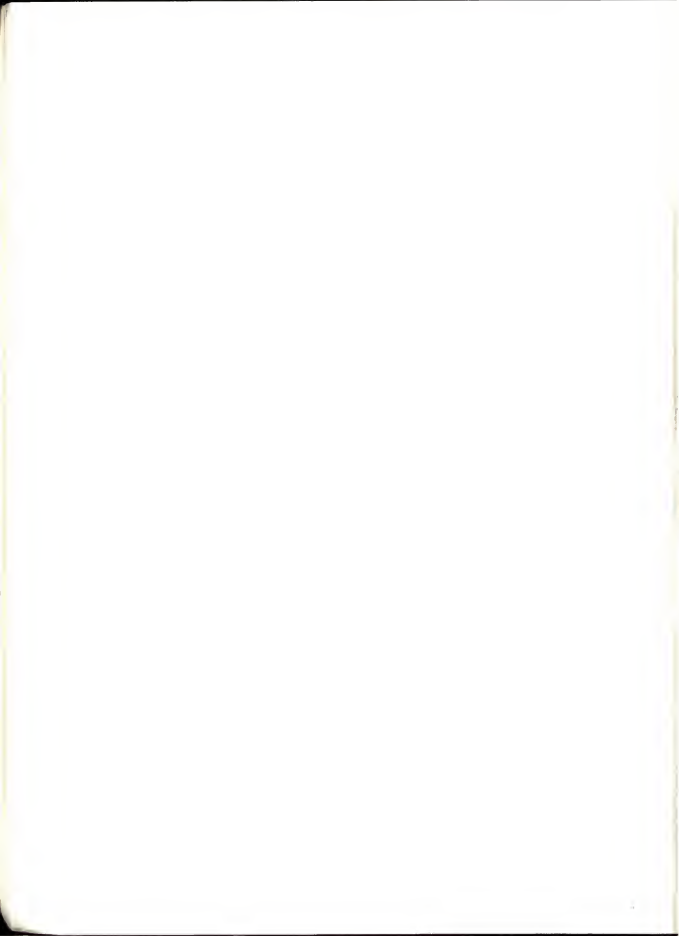
31. Rosenthal demonstrated the _____ in his experiments with rats labelled "maze-bright" and "maze-dull."
- a. experimenter effect
 - b. placebo effect
 - c. correlational effect
 - d. causal effect

32. List below three broad ethical areas psychologists must be concerned with in conducting research involving human subjects.

33. True-False. Ethical issues in psychological research are now regulated by the American Psychological Association and by most college psychology departments.

ESSAY QUESTIONS

1. Discuss the advantages and disadvantages of the naturalistic observation technique and the experimental method in understanding behavior.
2. Describe some of the pseudo-psychologies. What is the relationship between the pseudo-psychologies and the fallacy of positive instances?
3. Discuss the ways in which you can critically evaluate the many psychological claims made in the popular press.
4. How can the expectation of the experimenter influence the outcome of an experiment? Discuss the work of Rosenthal with "maze-bright" and "maze-dull" rats and his research at the U.S. Air Force Academy Preparatory School. How do these results relate to different labels we apply to people in our culture (e.g. mentally retarded, handicapped, welfare recipients, etc.)?



The Biology of Behavior **3** and Conscious Experience

TERMS AND DEFINITIONS

mechanistic approach
neuron
dendrites
soma
axon
telodendria
resting potential
nerve impulse
action potential
neurotransmitters
synapse
acetylcholine
curare
nerves
myelin
neurilemma
central nervous system (CNS)
peripheral nervous system
somatic system
autonomic system
sympathetic branch
parasympathetic branch
white matter
reflex arc
sensory nerves
motor nerves
connector neuron (interneuron)
effector cells
cerebral cortex
grey matter

corticalization
association areas
hemispheres
corpus callosum
electrode
occipital lobe
tumors
parietal lobe
temporal lobes
frontal lobes
motor cortex
association cortex
aphasia
agnosia
Broca's area
subcortex
brainstem (hindbrain)
midbrain
forebrain
medulla
cerebellum
spinocerebellar degeneration
reticular formation (RF)
superior colliculi
inferior colliculi
thalamus
hypothalamus
limbic system
major hemisphere
minor hemisphere

split brain
endocrine system
hormone
pituitary gland
acromegaly
thyroid gland
metabolism
adrenalin
noradrenalin
adrenal gland
adrenal medulla

adrenal cortex
corticoids
virilism
premature puberty
cerebrovascular accident (stroke)
concussion
contusion
senility
cerebral arteriosclerosis
plasticity
electrical stimulation of the brain (ESB)

IMPORTANT INDIVIDUALS

Jose Delgado
Marcel Kinsbourne

Roger Sperry
Robert Ornstein

PROGRAMMED REVIEW

1. (p. 49) The brain is a mass of _____ tissue about the size of a large _____.
2. (p. 49) The brain weighs a little over _____ pounds and consists of _____ to _____ billion individual nerve cells.
3. (p. 49) These nerve cells are called _____.
4. (p. 50) Scientists have long been convinced that the brain is the organ of consciousness and the origin of action. Researcher _____ demonstrated this by "controlling" the actions of a charging bull through the use of electrodes activated by a radio transmitter.
5. (p. 50) _____ is the study of the way the brain and the nervous system allow us to respond to the world.
6. (p. 50) This branch of psychology takes a very _____, seeing humans and animals as complex biological machines.
7. (p. 50) The neurons of the brain consist of four basic parts. One of these, the _____, are a receiving area where information from other neurons is accepted.
8. (p. 50) The _____ or body is a transition area in which incoming information is collected and combined.
9. (p. 50) Nerve impulses are triggered and travel down the _____.
10. (p. 50) Although axons are less than _____ - _____ of an inch thick, they may stretch several _____ through the adult nervous system.

11. (p. 50) At the end of the axon is a branching array of _____ which connect the neuron to the dendrites and somas of other nerve cells.
12. (p. 50) Differing amounts of sodium and potassium inside and outside each nerve cell results in a tiny difference in electrical charge across the cell _____.
13. (p. 50) In humans, this electrical charge, called a _____, is about minus _____ millivolts.
14. (p. 50) When a brief flow of electrical current is caused by movement of charged particles in and out of the cell, an _____ (or nerve impulse) is produced.
15. (p. 50) When the action potential reaches the ends of the telodendria, it causes the release of _____.
16. (p. 51) These chemicals cross the _____, the tiny space between two neurons, and alter the electrical charge of the next neuron.
17. (p. 51) Neurotransmitters can alter the activity of the next neuron either by _____ it or _____ it.
18. (p. 51) If a number of nerve impulses arrive together or in rapid succession, the collective effect changes the resting potential enough to reach the _____ for discharge and triggers a nerve impulse in the receiving cell.
19. (p. 51) The existence of a threshold for firing makes the action potential an _____ - _____ - _____ event: it occurs completely or not at all.
20. (p. 51) Nerve impulse speed depends on many factors including size. For example, very fine nerve fibers may carry a nerve impulse at a rate of _____ feet per second or less.
21. (p. 51) On the other hand, longer and larger fibers average about _____ feet per second, or about _____ miles per hour.
22. (p. 52) There are thousands of chemicals capable of affecting the brain and nervous system by imitating, duplicating, or cancelling the effects of neurotransmitters. For example, injections of _____ prevent the cells from recharging after the release of the neurotransmitter _____.
23. (p. 52) _____ are composed of bundles of nerve fibers (axons and dendrites).
24. (p. 52) Many nerve fibers have an outer coating of fatty tissue called _____, which acts somewhat like a layer of insulation.

25. (p. 52) Nerve fibers outside the brain and spinal cord usually have a thin layer of living cells called _____, which provide a tunnel through which crushed nerve fibers can regenerate.
26. (p. 52) If you were to accidentally cut the nerves in your finger you could expect sensation to return at a rate of about _____ per day, thanks to the presence of the neurilemma.
27. (p. 52) However, if damage occurs within the _____ or _____, no regeneration is possible, as in polio where the cell bodies of neurons supplying the skeletal muscles are destroyed.
28. (p. 53) The _____ is composed of all nervous tissue encased by bone, or more simply, the _____ and _____.
29. (p. 53) The _____ consists of nerves which carry information to and from the CNS.
30. (p. 53) The peripheral system is divided into two subparts. One is the _____ system which conveys information from the sense organs and the skeletal muscles.
31. (p. 53) The other is the _____ system which conveys information to and from the internal organs and glands.
32. (p. 53) The autonomic nervous system can be further divided into the _____ and _____ branches, both important in the control of emotional responses.
33. (p. 54) The _____ responds during times of arousal and mobilizes the body's resources for action.
34. (p. 54) The _____ is a status quo system which is most active during periods of low arousal, and has the role of maintaining certain vital functions at moderate levels.
35. (p. 54) If you were to cut through the spinal cord, you would see columns of _____, nervous tissue made up of the axons of neurons which leave the spinal cord at various points to form peripheral nerves.
36. (p. 54) There are _____ major spinal nerves leaving each side of the spinal cord.
37. (p. 54) These nerves, together with an additional _____ nerves which leave the brain directly (the cranial nerves), place the body in contact with the brain.
38. (p. 54) Within the spinal cord, the simplest behavior sequence, a _____, can be organized without any direct participation from the brain.

39. (p. 54) The reflex arc begins with the detection of sensory information, carried to the spinal cord by a _____.
40. (p. 54) Next, the sensory neuron synapses with a _____ neuron inside the spinal cord.
41. (p. 54) The connector cell in turn communicates information to another connector cell that leads back to _____.
42. (p. 54) The muscle fibers are made up of _____ cells which contract and move the muscle.
43. (p. 56) Relative to body size, humans have very highly developed brains. The proportion of brain weight to body weight for humans is _____ to _____.
44. (p. 56) Moving up the evolutionary scale there is an ever-increasing proportion of brain tissue devoted to the _____.
45. (p. 56) The cortex covers most of the visible portions of the brain with a mantle of _____ (spongy tissue made up mostly of cell bodies and looking like a walnut).
46. (p. 56) Human intellectual superiority appears to be related to _____, or increase in the size and wrinkling of the cortex.
47. (p. 56) Also important is the fact that in humans there is an increase in the size of cortical _____ that seem to be directly related to higher mental abilities.
48. (p. 56) The cortex is composed of two sides or _____ interconnected through a large band of fibers called the _____.
49. (p. 56) The two hemispheres control _____ sides of the body.
50. (p. 57) The cerebral cortex can be divided into several distinct _____ or areas.
51. (p. 57) To determine the function of each lobe, the cortex can be activated by a small electrified needle or wire called an _____.
52. (p. 57) The _____ lobe, located at the back of the brain is the visual area of the cortex.
53. (p. 57) Patients with _____ (a growth of cells which interferes with brain activity) in the occipital lobes experience double images, hallucinations, et cetera.
54. (p. 57) The _____ lobe is located just above the occipital lobe.

55. (p. 57) Touch, temperature, pressure and other _____ sensations are channeled to the _____ area on the parietal lobe.
56. (p. 57) The _____ lobes are located on each side of the brain and extend below to the underside of the cortex.
57. (p. 57) _____ information projects directly to the temporal lobes.
58. (p. 57) The temporal lobe is also associated with the storage of _____ and the processing of _____ stimuli.
59. (p. 57) The _____ lobes perform a mixture of functions. Part of this area, the _____, is located immediately in front of the parietal lobe and is responsible for directing the body's muscular responses.
60. (p. 57) When areas of the frontal lobes other than the motor cortex are removed, animals lose the ability to judge the passage of _____ or to respond to _____ situations.
61. (p. 58) Damage to the frontal lobes in humans tends to produce a decrease in _____ and a decrease in the ability to perform tasks requiring abstract _____, _____ or _____.
62. (p. 58) All other areas of the brain besides the sensory and motor areas are collectively called the _____.
63. (p. 58) The association cortex seems to process and combine information from various senses. Cues to the working of this area come from studies of humans with damage to other areas. Of special interest are _____ (speech disturbances) and _____ (the inability to identify objects).
64. (p. 58) Aphasias occur when there is damage to the speech areas of the frontal lobes. One region known as _____ area is involved in the production of speech sounds.
65. (p. 60) Below the cerebral cortex and completely covered by it are structures that are collectively termed the _____.
66. (p. 60) The subcortex can be divided into three general areas called the _____ or _____, the _____, and the _____.
67. (p. 60) As the spinal cord enters the skull to join the brain, it widens into the brainstem, consisting principally of the _____ and _____.
68. (p. 60) The medulla contains centers important for the _____ control of vital life functions such as heart rate, breathing, and swallowing.
69. (p. 61) The cerebellum functions primarily to regulate _____, muscle _____ and _____.

70. (p. 61) The importance of the cerebellum is indicated by the effects of a crippling disease called _____. This disease first produces tremor, dizziness and muscular weakness and later affects many responses related to balance and distance judgment.
71. (p. 61) In a space within the medulla and brain stem is a network of fibers and cell bodies called the _____.
72. (p. 61) The RF is important in at least three ways. First, it acts as a kind of _____ for most of the information coming to and from the brain.
73. (p. 61) Second, the RF gives priority to some incoming messages while excluding others. This is basically what we mean by _____.
74. (p. 61) Third, and perhaps most importantly, the RF appears to be a general _____.
75. (p. 61) The _____ mainly serves as a link between brain structures above and below it.
76. (p. 61) Its two most important areas are the _____ which receive and process visual information, and the _____ which do the same for hearing.
77. (p. 61) Two of the most important areas of the forebrain deep within the very center of the brain are the _____ and the _____.
78. (p. 61) The thalamus acts as a _____ "switching station" for sensory information on its way to the cortex. This structure has sensory information relayed to it, but also processes that information as well.
79. (p. 61) The hypothalamus has been implicated in the control of behaviors as diverse as _____, _____, _____ control, _____ release, _____ and _____, _____, and emotion.
80. (p. 61) The hypothalamus, parts of the thalamus, and several structures buried within the cortex have been collectively labelled the _____.
81. (p. 61) Although the specific function of each of the parts of the limbic system is unclear, as a group they share a role in the production of _____ and _____ behavior.
82. (p. 62) One of the most exciting discoveries concerning the limbic system was the finding that animals could be trained to _____ a _____ in order to receive an electrical stimulation of the limbic system as a reward.

83. (p. 63) The left side of the cortex (which controls the right side of the body) has been called the _____ because it tends to be dominant over the right, or _____.
84. (p. 63) The left hemisphere predominantly governs the ability to use _____, to do _____ computation, or to engage in other orderly or analytic acts.
85. (p. 63) The right hemisphere is superior at _____, _____, and at global or relational tasks such as dance, arts, crafts, et cetera.
86. (p. 63) Researcher Marcel Kinsbourne believes that _____ can reveal which hemisphere is being used.
87. (p. 63) A predominance of eye movements to the _____ indicates use of the left hemisphere, and vice versa.
88. (p. 64) When the corpus callosum connecting the two hemispheres is disconnected, as is sometimes surgically done in advanced cases of _____, the person is said to have a _____.
89. (p. 64) When this occurs, a person given a key to hold in their left hand can point to a corresponding object, but cannot _____ describe the object.
90. (p. 64) This is true because the speaking half of the brain, the _____ side, is unaware of what is occurring in the other half.
91. (p. 65) The nervous system is not the only communication network in the body. The _____ is made up of a number of glands which pour chemicals directly into the bloodstream.
92. (p. 65) These chemicals, called _____, are transported throughout the body where they affect bodily functioning and behavior.
93. (p. 66) The _____ is a small structure hanging from the base of the brain.
94. (p. 66) It is important in the regulation of _____.
95. (p. 66) Secretion of too much growth hormone toward the end of the growth period causes excessive growth on the arms, hands, feet, and facial bones. This condition is known as _____.
96. (p. 66) The pituitary gland also affects the functioning of other glands (especially the _____ and _____ glands).
97. (p. 66) Because of its many effects, the pituitary is often called the _____ gland.
98. (p. 66) The _____ gland consists of tissue found in the neck on each side of the windpipe.

99. (p. 66) The thyroid gland regulates _____ (the rate of energy production in the body).
100. (p. 66) The thyroid gland can have a sizable effect on _____.
101. (p. 67) When you are frightened or angry, a number of important changes take place in your body that are brought about by the release of _____ and _____ into the blood stream.
102. (p. 67) The _____ or inner core of the adrenal glands is the source of these hormones.
103. (p. 67) The _____ or outer layer of the adrenal gland produces a second set of important hormones called _____.
104. (p. 67) Corticoids regulate _____ in the body and are related to the body's ability to resist stress.
105. (p. 67) The corticoids are also a secondary source of _____.
106. (p. 67) An over-secretion of the auxiliary sex hormones can cause _____, in which a woman grows a beard or a man's voice becomes so low it is difficult to understand.
107. (p. 67) Over-secretion in children may cause _____ resulting in full sexual development.
108. (p. 69) In the U.S., over one _____ persons suffer a stroke, or _____ (CVA) each year.
109. (p. 69) There are two basic types of CVA. One occurs when a _____ blocks circulation in the brain causing a damaging build-up of carbon dioxide and waste products in brain tissue.
110. (p. 69) The other type of CVA occurs when a blood vessel _____ on the surface of the brain interrupting blood flow and oxygen to brain cells.
111. (p. 69) A _____ is caused by a blow to the head that jars the brain and stretches nerves and blood vessels enough to cause damage. This commonly results from contact sports.
112. (p. 69) This typically produces an immediate loss of _____, lasting from several minutes to hours, but no _____ damage remains.
113. (p. 69) Other symptoms include feelings of _____ and _____ for events just prior to the injury.
114. (p. 69) Also common are _____, _____, and _____ which may persist for several days.

115. (p. 69) A _____ is a more serious injury where the brain is compressed against the inner surface of the skull.
116. (p. 69) This results in a _____ that may last for days, followed by a period of _____ after regaining consciousness.
117. (p. 69) In addition to the after-effects like those of concussions, there may also be _____ difficulties, _____, _____ to light and noise, and possibly _____.
118. (p. 69) Repeated contusions are associated with _____ problems, _____, _____ deficits, and _____ changes.
119. (p. 69) _____ refers to changes in intellect, emotion, and behavior brought on by atrophy and shrinkage of brain tissue in the aged.
120. (p. 69) Much of the damage underlying senility is often due to _____, a narrowing of the blood vessels of the brain caused by fatty deposits which reduce the supply of blood.
121. (p. 70) Persons affected by cerebral arteriosclerosis at first experience _____, _____, and _____.
122. (p. 70) Later the person becomes _____, _____ is lost or becomes fragmentary, and _____, _____, and _____ behavior are typical.
123. (p. 70) Damage to the right brain hemisphere is associated with paralysis on the _____ side of the body. This is reversed for damage to the left hemisphere.
124. (p. 70) Since _____ percent of the population have the _____ center located in the left hemisphere, damage to this side may impair _____, _____, _____ and _____.
125. (p. 70) Children show greater _____ (or flexibility) of brain organization than adults.
126. (p. 70) Even when damage to the left hemisphere is severe, children under the age of _____ are usually able to shift language function to the right brain. However, after age _____, lifelong speech and language problems may result.
127. (p. 70) Plasticity in children reflects the rapid growth and development of the brain. For the same reason, the brain is more susceptible to damage from _____, which can reduce brain cells in the cerebellum, diminish the size of axons, and lower the number of cortical synapses by _____ percent.
128. (p. 71) Direct control over the machinery of the brain is possible through _____ of the brain, abbreviated _____.

129. (p. 71) ESB begins with _____: the placing of fine steel or platinum electrodes into strategic areas of the brain.
130. (p. 71) Stimulation applied to the proper brain area can instantly bring about most basic behaviors: terror, anxiety, rage, sexual desire, aggression, alertness, escape, eating, drinking, sleeping, movement of limbs, euphoria, _____, _____, _____ and more.
131. (p. 71) In human patients, outbursts of anger are associated with stimulation of the _____.
132. (p. 71) Stimulation of the _____ made one patient giggle and become flirtatious.

SELF TEST

1. Indicate (by circling) which of the following are parts of a neuron.

| | |
|-------------|----------------------|
| a. axon | e. association areas |
| b. soma | f. white matter |
| c. nuclei | g. telodendria |
| d. dendrite | h. medulla |
2. The firing of a nerve impulse down the axon is called a(n)
 - a. resting potential.
 - b. action threshold.
 - c. moving potential.
 - d. action potential.
3. Neurotransmitters are released at the _____ of the neuron.
 - a. dendrite
 - b. axon
 - c. soma
 - d. telodendria
4. True-False. A nerve cell either fires completely or not at all.
5. Nerve fibers outside the brain and spinal cord usually have a thin layer of living cells called
 - a. myelin.
 - b. nuclei.
 - c. neurilemma.
 - d. soma.
6. The _____ branch of the nervous system responds during times of arousal or emotional upheaval to prepare the body for "fight or flight."
 - a. sympathetic
 - b. peripheral
 - c. parasympathetic
 - d. somatic

7. Information from other neurons is accepted at the
 - a. soma.
 - b. axon.
 - c. telodendria.
 - d. dendrites.
8. True-False. The peripheral nervous system is composed of the somatic and autonomic systems.
9. True-False. Curare enhances the effects of acetylcholine.
10. Indicate (by circling) which of the following are involved in a reflex arc.

| | |
|---------------------|--------------------|
| a. sensory neuron | e. effector cells |
| b. corpus callosum | f. motor neuron |
| c. connector neuron | g. spinal cord |
| d. subcortex | h. left hemisphere |
11. The hemispheres of the brain are connected by the
 - a. striatum.
 - b. grey matter.
 - c. corpus callosum.
 - d. white matter.
12. The brain sites in which hearing is registered are the
 - a. parietal lobes.
 - b. occipital lobes.
 - c. temporal lobes.
 - d. frontal lobes.
13. True-False. Damage to the association areas of the brain intereferes with the reception of sensory information and its recognition or interpretation.
14. The visual areas of the brain are the
 - a. temporal lobes.
 - b. frontal lobes.
 - c. occipital lobes.
 - d. parietal lobes.
15. The _____ functions primarily to regulate posture, muscle tone, and muscular coordination.
 - a. cerebellum
 - b. reticular formation
 - c. medulla
 - d. corpus callosum
16. The superior and inferior colliculi are part of the
 - a. forebrain.
 - b. hindbrain.
 - c. midbrain.
 - d. lowerbrain.

17. The _____ is important in the production of emotion and motivated behavior.
 - a. limbic system
 - b. reticular formation
 - c. corpus callosum
 - d. frontal lobe
18. The master gland is the
 - a. adrenal gland.
 - b. pituitary gland.
 - c. thyroid gland.
 - d. parathyroid gland.
19. Metabolism is regulated by the
 - a. adrenal gland.
 - b. pituitary gland.
 - c. thyroid gland.
 - d. endocrine gland.
20. Salt balance in the body is regulated by
 - a. corticoids.
 - b. adrenalin.
 - c. noradrenalin.
 - d. endocrine.
21. True-False. Once a nerve in the brain or spinal cord is damaged, there is usually never any regeneration.
22. Speech difficulties, irritability, sensitivity to light and noise, convulsions, intellectual deficits, tremors, and coordination problems are all symptoms associated with which of the following?
 - a. CVA
 - b. ESB
 - c. contusion
 - d. concussion
23. Areas of the brain related to higher mental abilities like thinking, language, memory, and problem-solving are called
 - a. association areas.
 - b. conditioning areas.
 - c. cortical projections.
 - d. frontal lobes.
24. True-False. The two halves of the brain control opposite sides of the body.
25. Speech disturbances are also referred to as
 - a. agnosias.
 - b. aphasias.
 - c. neuralis.
 - d. anorexa.

26. Attention appears to be regulated by the
 - a. thalamus.
 - b. hypothalamus.
 - c. reticular formation.
 - d. superior colliculi.
27. Processing of bodily sensations are associated most closely with the
 - a. frontal lobes.
 - b. parietal lobes.
 - c. occipital lobes.
 - d. temporal lobes.
28. The final "switching station" for sensory information on its way to the cortex is the
 - a. thalamus.
 - b. hypothalamus.
 - c. reticular formation.
 - d. spinal cord.
29. True-False. Consciousness is nothing more than the electrical functioning of brain neurons.
30. True-False. Plasticity refers to fluctuations in cognitive functions which results from senility.
31. Blood clots and ruptured blood vessels are the main cause of which of the following?
 - a. contusion
 - b. convulsion
 - c. CVA
 - d. concussion
32. Senility is caused primarily by which of the following?
 - a. cerebrovascular accident
 - b. contusion
 - c. concussion
 - d. cerebral arteriosclerosis
33. True-False. ESB can be used to control a person completely against their will in much the same way that it can artificially produce almost all basic behaviors.

ESSAY QUESTIONS

1. Describe the role of the limbic system and its structure in human emotion and motivation.
2. Differentiate the various branches of the nervous system and their functions.
3. Outline the lobes of the brain and their importance.

4. What is a split-brain? Discuss the experiments which have explored this phenomenon and what it indicates about human consciousness.
5. What are some of the various types of damage that can impair the brain and what are their behavioral effects?



The Sensory World and Reality 4

TERMS AND CONCEPTS

transduction
phosphenes
localization of function
somesthetic senses
kinesthetic senses
vestibular senses
olfaction
gustation
taste bud
compression
rarefaction
sound waves
pinna
eardrum
auditory ossicles
oval window
cochlea
hair cells
conduction deafness
nerve deafness
stimulation deafness
visual capture
electromagnetic radiation
visible spectrum
hue
saturation
brightness
retina
lens
accommodation

hyperopia
myopia
presbyopia
diaphragm
iris
rods
cones
fovea
visual acuity
peripheral vision
trichromatic theory
opponent-process theory
color blindness
nystagmus
color weakness
Ishihari Test
dark adaptation
rhodopsin
nightblindness
psychophysics
absolute threshold
perceptual defense
perceptual vigilance
subliminal perception
difference threshold
just noticeable difference (JND)
Weber's Law
sensory adaptation
selective attention
central process

acupuncture
gating theory

counterirritation

IMPORTANT INDIVIDUALS

Jerome Lettvin
Wilder Penfield
E. H. Weber
Ronald Melzack

Patrick Wall
Donald Hebb
John Lilly
Peter Suedfeld

PROGRAMMED REVIEW

1. (p. 74) The transformation of sensory stimuli into nerve impulses is called _____.
2. (p. 75) The sensory system operates through several mechanisms. One of these is to carefully limit the sensitivity of each sense to make it function as an effective _____ system.
3. (p. 75) By limiting the sensitivity of the sensory system, _____ of information can be more easily obtained. This helps us better sort out and process information that is most important to us.
4. (p. 75) Many sensory receptors break down information before sending nerve messages to the brain. This was demonstrated by Lettvin's work with frog optical nerves, which showed that the frog's eye sends only four kinds of "messages" to the brain: detection of _____ edges, _____ edges, oval _____, and small dark moving spots (detected by "bug-detectors").
5. (p. 75) In addition to selection of information, each sensory system _____ important features of the environment into messages assembled and decoded by the brain.
6. (p. 75) Receptor cells at the back of the eye which are normally sensitive to light also respond to _____. If you press firmly on your eyelids covering the eye itself, you may see flashes of color called _____ as well as stars or checkerboards.
7. (p. 76) Localization of function means that the sensation you experience depends on the area of the _____ stimulated.
8. (p. 76) Penfield found that _____ of the visual area in the brain of conscious humans was experienced as light/visual sensations.
9. (p. 76) Gymnasts launching themselves through a complex routine on the uneven bars may rely as much on the _____ senses as on vision.

10. (p. 76) The somesthetic senses include the _____ senses (touch, pressure, pain, etc.).
11. (p. 76) _____, receptors in the muscles and joints that relay information on body position and movement, are another type of somesthetic sense.
12. (p. 76) Another type of somesthetic sense, _____, involves receptors in the inner ear that signal balance and are involved in motion sickness.
13. (p. 77) Specialized receptors in the skin respond to at least five different sensations: touch, pressure, pain, cold, and warmth. All together the skin has about _____ nerve endings for temperature, half a million for _____ or _____, and three million for _____.
14. (p. 78) Of all the skin receptors, the most heavily represented are those that respond to _____.
15. (p. 78) Pain receptors in the internal organs are very scattered and loosely organized. This is the cause of _____ pain, such as that experienced in the left shoulder or arm due to _____ (reduced blood flow to the heart).
16. (p. 78) _____ or smell is a _____ sense, responding primarily to gaseous substances carried in the air. _____ or taste is also a chemical sense.
17. (p. 79) It is currently believed that different smells correspond to different shaped _____ which fit into the "holes" of the odor receptors.
18. (p. 79) This is called the _____ and _____ theory, which seems to explain many odors.
19. (p. 79) The only actual tastes are _____, _____, _____, and _____.
20. (p. 79) Tastes are actually more varied and complex than implied by the four taste qualities because we tend to include the sensations of _____, _____, and _____ along with taste.
21. (p. 79) The primary receptor for taste is the _____, located mainly on the top of the tongue.
22. (p. 79) Part of the reason people seem to have very different tastes is _____.
23. (p. 79) For example, phenylthiocarbamine tastes bitter to about _____ percent of those tested, and has no taste for the other _____ percent.

24. (p. 79) Taste cells have a life of only _____. With age the replacement rate slows down so the sense of taste diminishes. This is why many foods you disliked in childhood may be more acceptable now.
25. (p. 80) Sound travels as a series of invisible waves composed of _____ (peaks) and _____ (valleys).
26. (p. 80) Any object set in motion will produce _____ as it vibrates.
27. (p. 80) What we call the "ear" is only the _____, the visible external portion of the ear that helps funnel and concentrate sounds.
28. (p. 80) As they spread through the ear, sound waves are funneled into the ear where they collide with the _____, which is like a tight drumhead within the ear canal.
29. (p. 80) These sound waves hit the eardrum, causing the vibration of three small bones called the _____.
30. (p. 80) The third ossicle is attached to a second membrane or drumhead called the _____.
31. (p. 81) As the oval window moves back and forth, it sets up waves in a fluid within the canals of the _____.
32. (p. 81) In the cochlea are the ultimate receptors for hearing, the _____, which are moved by waves in the canals of the cochlea.
33. (p. 81) These waves in the fluid are detected by the hair cells which convert sound stimuli into _____ to be sent to the brain.
34. (p. 81) There are three types of deafness. _____ occurs when the auditory ossicles are immobilized by disease or injury.
35. (p. 81) Conduction deafness reduces the _____ of vibrations to the inner ear and can often be overcome through the use of _____ that make sounds much louder.
36. (p. 81) _____ is a hearing loss resulting from damage to the auditory nerve. Hearing aids are of no help to a person with this condition.
37. (p. 81) _____ results from prolonged exposure to very loud noise.
38. (p. 81) As examples, daily exposure to _____ decibels or more causes some hearing loss, short period of exposure to _____ decibels (as at rock concerts) causes temporary deafness, and even brief exposure to _____ decibels can cause permanent deafness.

39. (p. 82) Approximately _____ percent of the information conveyed to the brain comes from vision.
40. (p. 82) A number traced on your forehead will be perceived as backwards, while the same number traced on the back of your head will seem normal because it faces forward, as do the eyes. This illustrates that vision dominates the touch sensations and is an example of _____.
41. (p. 82) Light, gamma rays, ultraviolet rays, infrared, FM, television, and short waves are all types of _____ that are constantly around you.
42. (p. 82) The _____ of colors extends from violet with a wavelength of _____ nanometers to red with a wavelength of _____ nanometers.
43. (p. 82) As a physical property of light, wavelength corresponds to the psychological dimension of _____.
44. (p. 82) Colors are narrow bands of the spectrum. A very narrow band of wavelengths produces a color that is very _____ or pure.
45. (p. 82) A third dimension of vision, brightness, corresponds roughly to the _____ (or height) of light waves.
46. (p. 83) The layer of cells (photoreceptors) in the eye sensitive to light is called the _____.
47. (p. 83) The _____ of the eye focuses the image on the retina.
48. (p. 83) The front of the eye is covered by a clear transparent "window" called the _____ which bends light rays inward into the interior of the eye.
49. (p. 83) When the lens of the eye stretches or thickens to focus images, the process is called _____.
50. (p. 83) The shape of the eye also affects focusing. If the eye is too short, objects close to the eye cannot be focused and farsightedness or _____ results.
51. (p. 83) If the eyeball is too long, subjects in the distance cannot be focused, resulting in nearsightedness or _____.
52. (p. 83) _____ occurs when the lens becomes less resilient and less able to accommodate, often due to aging.
53. (p. 84) The structure of the eye that controls the amount of light entering is the _____.

54. (p. 84) The _____ is a colored circular muscle that expands and contracts to control the size of the _____, or dark opening at the center of the eye.
55. (p. 84) The color of the eyes determines their effectiveness in shading light. People with _____ eyes, as opposed to _____ eyes, have less pigment and are more likely to squint in bright light.
56. (p. 84) The iris helps in controlling the amount of light entering the pupil. In dim light the pupils _____ (enlarge), and in bright light they _____ (narrow). At the largest opening of the iris, the pupil is _____ times larger than at the smallest.
57. (p. 84) One type of receptor cell of the eye, called _____, numbers about $6\frac{1}{2}$ million in each eye, functions in bright light to produce color sensations, and picks up fine details.
58. (p. 84) A second type of receptor cell of the eye, called _____, numbers about 100 million, functions in dim light, and is capable of producing only sensations of black, white, or gray.
59. (p. 84) There is a _____ in each eye where the optic nerve enters the eye due to a lack of receptors at that point.
60. (p. 84) The cup-shaped depression in the middle of the retina packed with about 50,000 cones is called the _____.
61. (p. 84) _____ refers to the ability to distinguish fine details.
62. (p. 84) It is best when an image falls on the _____ and _____ steadily as one moves toward the edge of the retina.
63. (p. 85) _____ vision is created by the constant movement of the eye to keep images focused on the retina.
64. (p. 85) The rods reach their greatest density about _____ degrees to each side of the fovea and are particularly sensitive to _____.
65. (p. 85) Those who have lost peripheral vision are said to have _____ vision, a condition much like walking around with a pair of blinders on.
66. (p. 85) Although less sensitive to detail, the rods are many times more responsive to _____ than are cones. Thus, rods are most important for night vision.
67. (p. 86) The cones are most sensitive to wavelengths in the _____ region of the spectrum.
68. (p. 86) If we tested only rods for sensitivity to colors, _____ would be the brightest.

69. (p. 86) The _____, or three-color theory of color, holds that there are three types of cones, each with a heightened sensitivity to a specific color: _____, _____, or _____. Other colors are assumed to result from a combination of these three.
70. (p. 86) However, there appear to be four colors psychologically primary, the original three and _____.
71. (p. 86) The _____ theory was developed to explain why you can't have a reddish-green or a yellowish-blue.
72. (p. 86) It postulates that there are receptors capable of responding to either red or green, yellow or blue, black or white, but not both. Fatigue in one color response for a receptor causes an _____ of the opposite color as the receptor recovers.
73. (p. 86) The trichromatic theory seems to work at the level of the _____, while the opponent-process theory seems to apply after that point in the visual pathway.
74. (p. 87) A person who is completely _____ sees the world as if it were a black and white movie.
75. (p. 87) This condition is frequently accompanied by visual _____, jerking eye movements which move the visual image off the fovea.
76. (p. 87) _____, or partial color blindness, is much more common than total color blindness.
77. (p. 87) Approximately _____ percent of the male population (but less than _____ percent of women) are red-green color blind.
78. (p. 87) Red-green color blindness is a sex-linked trait almost always inherited from one's _____.
79. (p. 87) A common test for color blindness is the _____ test.
80. (p. 87) It consists of _____ composed of dots superimposed on a background that is also made up of dots.
81. (p. 87) _____ is the increase in sensitivity to light that occurs when one spends time in the dark.
82. (p. 87) Studies of this phenomenon indicate it takes about _____ minutes of complete darkness to reach maximum visual sensitivity.
83. (p. 87) Dark adaptation results from the breakdown of _____ when struck by light, which recombine best in darkness.
84. (p. 87) Dark adaptation is based on _____ or visual purple in the rods that breaks down chemically when struck by light.

85. (p. 88) Submarines and airplane cockpits are illuminated with _____ light, since the _____ are insensitive to this color. This allows people to perform their duties while dark-adapting.
86. (p. 88) One of the breakdown products of rhodopsin is _____.
87. (p. 88) If one is suffering from vitamin A deficiency, a condition known as _____ may result.
88. (p. 89) _____ is the study of the relationship between physical stimuli and psychological sensations.
89. (p. 89) If we seek the absolute minimum amount of stimulation necessary for a sensation to occur, we are looking for the _____.
90. (p. 89) The absolute threshold for auditory information at maximum sensitivity is the hearing of vibrations of the eardrum as small as one _____ of a centimeter (one-tenth the diameter of a hydrogen atom).
91. (p. 89) A _____ of light is the smallest possible particle of light energy.
92. (p. 89) It takes _____ photons of light striking the retina to produce a sensation of light.
93. (p. 89) Humans can hear sounds ranging in pitch from about _____ cycles per second to about _____ CPS.
94. (p. 89) A stimulus that causes discomfort or embarrassment may have to be viewed longer before it is perceived because of _____.
95. (p. 89) When the threshold for recognition is changed in the opposite direction (lowered), we speak of _____ as a possible cause.
96. (p. 90) _____ involves stimuli below the normal threshold of sensation.
97. (p. 90) Advertising using subliminal stimuli has caused much furor. Psychologists believe it to be a generally _____ means of controlling buying behaviors.
98. (p. 90) When we seek the amount of stimulus change necessary to be perceived as different, we are looking for the _____.
99. (p. 90) This involves determining how much stimulus change must occur to be _____, abbreviated _____.
100. (p. 90) _____ states that the amount of change in a stimulus necessary to produce a JND is a constant proportion of the original stimulus intensity.

101. (p. 90) As determined by the study of difference thresholds, _____ sensitivity is greater than taste sensitivity.
102. (p. 91) The decrease in sensory response that accompanies a constant or unchanging stimulus is called _____.
103. (p. 91) Vision does not usually undergo sensory adaptation because the eye normally makes thousands of tiny movements every minute. These movements are caused by tremors in the eye muscles known as _____. It is these movements which shift visual images from one receptor cell to another and prevent adaptation.
104. (p. 91) The ability to select by "tuning in" or "tuning out" what senses we are receiving is called _____.
105. (p. 91) Attention is probably based not only on a _____ process of selecting messages, but also on a _____ of nerve impulses outside the brain.
106. (p. 91) Melzack and Wall are studying "_____ gates" in the spinal cord.
107. (p. 91) They suggest that there are two types of pain fibers entering the spinal cord: _____ (fast conducting) and small (_____ conducting). A message from one fiber can close the gate to pain transmitted by the other fiber.
108. (p. 92) This gate theory is an explanation for the effectiveness of the ancient Chinese art of _____. The needles create small sharp pains carried by small fibers that close the gates to more intense or chronic pain.
109. (p. 94) The three main psychological factors that affect pain sensitivity are _____, _____, and _____.
110. (p. 94) Fear or overall levels of anxiety increase pain. That is why the _____ of being excused from combat leaves soldiers insensitive to wounds that would agonize a civilian.
111. (p. 94) Pain can be selectively tuned out to some extent. This was illustrated in experiments where subjects reported the _____ pain when distracted by the viewing and description of color slides and the _____ pain when describing their moment to moment reactions to the pain stimulus.
112. (p. 94) The third principle of pain is illustrated by experiments in which subjects are allowed to _____ pain stimuli, to _____ them, or to administer pain stimuli to themselves. Control of pain reduces its intensity.
113. (p. 95) Physicians have found that a brief, mildly painful stimulus can relieve more severe pain. This effect is referred to as _____.

114. (p. 96) Subjects exposed to _____ frequently report losing track of time, extreme difficulties in concentrating, and hallucinations.
115. (p. 96) _____ found that subjects paid \$20 a day to undergo sensory deprivation could rarely endure more than 2 or 3 days of reduced stimulation.
116. (p. 96) John Lilly investigated sensory deprivation effects on subjects required to float in water. In this situation, subjects experienced _____.
117. (p. 96) Peter Suedfeld has found that sensory deprivation can help people who want to quit _____ by removing all cues for this habit.

SELF TEST

1. List three effects subjects report when experiencing sensory deprivation as discovered by D. O. Hebb.

2. Lilly found that subjects severely deprived of sensory information while floating in a tank of water experienced _____ within 2 or 3 hours.
 - a. hypnogogic images
 - b. sleep distortions
 - c. counterirritation
 - d. subliminal perception
3. True-False. Frequently attending loud rock concerts can lead to conduction deafness.
4. The principle that the sensations you experience depend on the area of the brain stimulated is called _____.
 - a. doctrine of specific nerve energies
 - b. localization of function
 - c. nerve impulse transduction
 - d. selective attention
5. Melzack and Wall have used which of the following as an explanation for acupuncture?
 - a. gating theory
 - b. opponent-process theory
 - c. trichromatic theory
 - d. doctrine of specific nerve energies
6. The process by which sensory information is changed into nerve impulses is called _____.
 - a. transformation
 - b. localization
 - c. adaptation
 - d. transduction

7. Humans can hear sounds ranging from _____ CPS to _____ CPS.
 - a. 200 - 2,000
 - b. 20 - 20,000
 - c. 20 - 200,000
 - d. 20 - 200
8. The decrease in sensory response that accompanies a constant or unchanging stimulus is called _____.
 - a. sensory adaptation
 - b. selective attention
 - c. sensory habituation
 - d. response decrement
9. Indicate (by circling) which of the following are factors or techniques which affect pain level.

| | |
|----------------------------|----------------------|
| a. control of pain stimuli | e. compression |
| b. accommodation | f. acupuncture |
| c. rhodopsin | g. counterirritation |
| d. anxiety level | h. attention |
10. Our ability to tune in on any one of the many sensory messages while excluding others defines the process of _____.
 - a. selective attention
 - b. sensory selection
 - c. sensory adaptation
 - d. selective sensation
11. True-False. Pressure to the eye produces visual perceptions of stars, checkerboards, and flashes of light called phosphates.
12. True-False. Psychophysics is the study of how changes in physical stimuli relate to psychological sensations.
13. The minimum amount of stimulation necessary for a sensation to occur is called the _____.
 - a. difference threshold
 - b. absolute threshold
 - c. stimulation threshold
 - d. minimum threshold
14. The fact that subjects take longer to recognize "dirty" rather than "clean" words illustrates which of the following?
 - a. perceptual vigilance
 - b. perceptual adaptation
 - c. perceptual defense
 - d. subliminal perception
15. When establishing a difference threshold we are studying _____.
 - a. JNDs
 - b. NDJs
 - c. JDNs
 - d. DNJs

16. The principle that the amount of change in a stimulus necessary to produce a JND is a constant proportion of the original stimulus intensity is called _____.
Law.
a. Penfield's
b. Muller's
c. Hess'
d. Weber's
17. True-False. Absolute thresholds are absolutely the same from person to person.
18. The three dimensions of vision are _____, _____, and _____.
19. True-False. Subliminal stimuli can be used effectively in commercial advertising to increase product sales.
20. The part of the eye that focuses an image on the light-sensitive layer at the back of the eye is the _____.
a. retina
b. cone
c. rod
d. lens
21. The process whereby the lens of the eye stretches or thickens due to a series of muscle and ligament adjustments is called _____.
a. facilitation
b. accommodation
c. adaptation
d. acuity
22. True-False. It is the shape of the eye that primarily determines whether an individual is near or farsighted.
23. True-False. Hyperopia occurs when the eye is too short.
24. True-False. Myopia occurs when the eye is too long.
25. True-False. Presbyopia is the result of aging and refers to a decrease in lens resilience which leads to nearsightedness.
26. The mechanism of the eye that controls the amount of light entering is the _____.
a. lens
b. cornea
c. diaphragm
d. iris
27. The principle organ of taste is the
a. pinna.
b. taste bud.
c. cochlea.
d. cornea.

28. True-False. You may find as an adult that there are foods you now like which were not preferred as a child. This is because of sensory adaptation.
29. True-False. The fovea is packed with pure rods.
30. The receptor of the eye primarily responsible for color vision is the _____.
a. rod
b. retina
c. fovea
d. cone
31. The receptor of the eye that functions only in dim light is the _____.
a. rod
b. retina
c. cone
d. fovea
32. The jerking movement of the eye which frequently accompanies complete color blindness is called _____.
a. nyopia
b. presbyopia
c. nystagmus
d. accommodation
33. True-False. Approximately eight percent of the male population is red-green color blind.
34. Red-green color blindness is a sex-linked trait and is almost always inherited from one's _____.
a. maternal grandmother
b. paternal grandfather
c. maternal grandfather
d. paternal grandmother
35. True-False. A common test for measuring near and farsightedness is the Ishihari Test.
36. The increase in sensitivity to light that occurs when you stay in the dark for some time is called _____.
a. light enhancement
b. dark adaptation
c. dark facilitation
d. light adaptation
37. Indicate (by circling) which of the following are parts of the ear.
a. pinna
b. retina
c. auditory ossicles
d. cochlea
e. iris
f. hair cells
g. cornea
h. oval window

38. True-False. Rhodopsin is intimately involved in the process of dark adaptation.
39. A deficiency of _____ may lead to night blindness.
- vitamin A
 - vitamin B
 - vitamin C
 - vitamin D
40. True-False. The eye normally does not move, but may do so nearly continuously when a condition known as nystagmus exists.
41. The fact that you do not notice the smell of cooking fish after you have been in a room for a few minutes, illustrates the phenomenon of _____.
- selective functioning
 - sensory adaptation
 - function localization
 - sensory deprivation

ESSAY QUESTIONS

- Discuss the analogy between the eye and a camera. Where does the analogy hold true and where does it not apply?
- Describe Melzack's theory of pain and how it relates to acupuncture. Discuss the various factors involved in pain sensitivity. How can each be used to minimize perceived pain?
- Describe the structure of the ear. What are the three types of deafness and how may they develop?
- What is psychophysics? Discuss and give examples of absolute and difference thresholds, Weber's Law, perceptual defense and vigilance, and subliminal perception.

Perception 5

TERMS AND CONCEPTS

perception
size constancy
shape constancy
brightness
brightness constancy
figure-ground organization
closure
depth perception
visual cliff
accommodation
convergence
retinal disparity
monocular cues
binocular cues
stereoscopic vision
pictorial depth cues
 linear perspective
 relative size
 light and shadow
overlap (interposition)
texture gradients
aerial perspective
relative motion (motion parallax)
moon illusion
Ames Room
inverted vision
tachistoscope
perceptual categories
stroboscopic movement
Muller-Lyer illusion
size-distance invariance
stimulus context (frame of reference)
reality testing
habituation
dishabituation
adaptation level
perceptual expectancy

IMPORTANT INDIVIDUALS

Bela Julesz
William Hudson
Colin Blakemore
Graham Cooper
Jerome Bruner
Harry Helson
Abraham Maslow
Robert Ornstein

PROGRAMMED REVIEW

1. (p. 98) The process of assembling sensations into a usable mental representation of the world is called _____.
2. (p. 99) A newly sighted person does not immediately recognize his environment, but rather must _____ to identify objects, to read clocks, numbers and letters, and to judge sizes and distances.
3. (p. 99) The fact that apparent/perceived size of an object remains the same even though the size of its retinal image changes is called _____.
4. (p. 99) Turnbull showed that Congo _____ have no size constancy. They have had no past experience with seeing objects at great distance. Therefore, a buffalo in the distance looks like an insect.
5. (p. 99) _____ refers to the fact that objects are perceived as having the same form even though the retinal image of the object changes depending on the angle at which the object is viewed.
6. (p. 100) _____ refers to how much light an object reflects.
7. (p. 100) _____ refers to the fact that under changing lighting conditions the same object reflects different total amounts of light, and yet the psychological brightness of the object does not change.
8. (p. 100) This principle is true because the _____ of light reflected by an object is still the same, relative to other objects in the environment, under any lighting conditions.
9. (p. 101) The simplest organization is to group some sensations into an object or "thing" that stands out against some plainer background. This process is called _____ - _____ organization.
10. (p. 101) It is probably _____ since it is the first perceptual ability to emerge when a cataract patient regains sight.
11. (p. 101) What causes sensations to become organized into a figure? List four factors which serve to bring some order to your perceptions: _____, _____, _____, and _____.
12. (p. 101) The last of this list in your text, closure, refers to the tendency to _____ a figure.
13. (p. 101) A meaningful pattern represents a _____, or guess held until the evidence contradicts it. We usually guess correctly due to the tremendous _____ of information in the environment.
14. (p. 101) Organization of perceptions is not always simple or automatic. _____ allow more than one organization. This is demonstrated by the "three-pronged widget," an impossible figure.

15. (p. 104) _____ is the ability to see three-dimensional space and to accurately estimate distances.
16. (p. 104) Depth perception is partially innate and partially _____.
17. (p. 104) The _____ is an apparatus frequently used to measure depth perception in human infants and lower animals. It has been shown that infants between ages six to fourteen months do have depth perception.
18. (p. 104) Depth cues that will function using only one eye are referred to as _____ cues.
19. (p. 104) Depth cues that require the use of both eyes are called _____ cues.
20. (p. 104) A number of depth cues combine to produce the experience of three-dimensional space. One such cue is _____, which refers to the ability of the eye lens to bend more to focus objects close to the eye than at a distance.
21. (p. 104) However, accommodation contributes little to depth perception beyond _____ feet.
22. (p. 104) A second bodily cue for depth is _____. This refers to the fact that when you look at something _____ feet or less in distance, your eyes must turn in to focus the object.
23. (p. 105) The most important source of depth perception is _____. This is based upon the fact that the eyes are separated by two and one-half inches, so that each eye receives a slightly different view of the world.
24. (p. 105) When the images seen by both eyes are _____ into one overall image, a powerful sensation of depth occurs. This is the principle behind _____ movies where two cameras film a scene from slightly different angles.
25. (p. 106) The two separate films are then simultaneously projected on a screen while the audience wears glasses that filter out one of the images to each eye. This duplicates normal _____.
26. (p. 106) Three-dimensional space is woven from countless tiny differences between what the right and left eyes see. This is demonstrated by the "random dot stereograms" created by Bela Julesz to show how sensitive the brain is to any _____ of information from the eyes.
27. (p. 106) _____ depth cues refer to cues that work on a flat surface to reproduce depth. They can also be used effectively by a one-eyed individual to accurately gauge depth.

28. (p. 106) One such pictorial depth cue is _____, which refers to the apparent convergence of parallel lines in the environment.
29. (p. 106) If artists wish to depict two objects of the same size at different distances, they make the more distant object smaller. Thus they use _____ to reproduce depth.
30. (p. 107) Most objects in the environment are lighted in such a way as to create definite patterns of _____ and _____. Appropriate distribution of these qualities can give a two-dimensional design a three-dimensional feeling.
31. (p. 107) _____ or _____ describes a depth cue caused by one object partially blocking the view of another.
32. (p. 107) If you are standing in the middle of a cobble-stone street, the street looks coarse near your feet but the _____ of the stones gets smaller and finer as you look off into the distance. This gradual decrease in fine detail refers to a texture _____.
33. (p. 107) Smog, fog, dust and haze add to the apparent depth of an object. Objects seen at a distance tend to be hazy, washed-out in color, and lacking in detail due to _____.
34. (p. 108) Relative motion, also known as _____, is one of the most important depth cues.
35. (p. 108) An example of relative motion occurs when looking out the window of a moving car. Objects near to you seem to move _____ than objects in the distance.
36. (p. 108) Pictorial depth cues do appear to require learning. William Hudson has tested members of remote tribes who are unfamiliar with these cues. They see drawings as _____ - _____ designs.
37. (p. 108) The moon illusion refers to the fact that the moon looks _____ when it is low in the sky than when it is overhead.
38. (p. 109) This is because the _____ of the moon is greater when it is on the horizon and seen behind houses, trees, et cetera.
39. (p. 109) Since the moon makes the same size image on the horizon, but seems farther away when it is overhead, you compensate by perceiving it as _____ on the horizon.
40. (p. 110) Perceptual habits may become so ingrained that they lead us to distort or misperceive a stimulus. A decidedly lopsided room can be made to appear normal. This is the case with the _____, named after the man who designed it.

41. (p. 110) In the Ames Room, the left corner is further from the viewer than the right. This makes a person standing in the left corner look _____, whereas one standing in the right corner looks _____.
42. (p. 111) These perceptual habits seem to be programmed into the brain making us sensitive to important features of the environment. For example, Blakemore and Cooper found that kittens raised in rooms with _____ stripes could jump onto a chair, but bumped into chairs when walking on the floor. Likewise, "_____" eats easily avoided chair legs but missed when trying to jump onto chairs.
43. (p. 111) Could an adult adapt to a completely new perceptual world? An answer to this question is offered by experiments involving _____, where special goggles are used to turn the world upside down and reverse objects from right to left.
44. (p. 111) Experiments with inverted vision indicate that humans _____ learn to adapt to a new environment, but with difficulty.
45. (p. 111) _____ in a new visual world (as with inverted vision) seems to be a key in adaptation. Subjects who walked on their own adapted more quickly than subjects pushed around in a wheeled cart.
46. (p. 111) Psychologist Jerome Bruner believes that perceptual learning builds up a set of mental _____.
47. (p. 111) Bruner demonstrated this by using a _____ to flash pictures of cards on a screen. Subjects often misperceived the cards that did not fit their expectations. They relied upon previously established categories, rather than on the actual sensory information presented.
48. (p. 112) _____ are false perceptions that do not correspond with objective fact.
49. (p. 112) Illusions differ from hallucinations in that an illusion is a _____ of a stimulus that actually exists, while a person who is hallucinating believes a stimulus exists when one does not.
50. (p. 112) The illusion of _____ is responsible for putting the "motion" in motion pictures.
51. (p. 112) The famous _____ - _____ illusion illustrates how perceptual habits and past experience combine to produce illusions. In this illusion, a horizontal line with "arrowheads" appears _____ than the horizontal line with "Vs" on each end.
52. (p. 113) The V-tipped line looks farther away than the arrowhead-tipped line, so you compensate by seeing the V-tipped line as larger. When two objects make the same size image but one is more distant than the other, the more distant object appears larger. This is formally known as _____ - _____.

53. (p. 114) The South African _____ who live in a "round" world do not experience the Muller-Lyer illusion because they have had little previous experience with straight lines.
54. (p. 114) Another factor affecting perception is the _____ in which a stimulus is judged. For example, a man 6 feet in height looks tall when surrounded by averaged height people and short among professional basketball players.
55. (p. 114) Context may be thought of as a _____ of _____, or set of standards to which a stimulus is related.
56. (p. 114) Helson refers to an individual's frame of reference as their _____. This determines how heavy you judge a particular weight when given no artificial standard with which to compare it.
57. (p. 115) The first stage of perception is _____, the selection of incoming stimuli.
58. (p. 115) Very _____ stimuli are attention getting. That is, stimuli that are brighter, louder, or larger tend to capture attention.
59. (p. 115) A dripping faucet at night makes little noise by normal standards, but because of _____ it may become as attention-getting as a single sound.
60. (p. 115) _____ or _____ is perhaps the most basic source of attention. We quickly habituate to a constant stimulus, but quickly attend to those not constant.
61. (p. 115) Advertisers take advantage of two motives, _____ and _____, in gaining your attention.
62. (p. 116) In perception, past experiences, motives, context, or suggestion may create a _____ that sets you to perceive in a certain way.
63. (p. 116) Many perceptual expectancies are created by _____. What you expect often depends on what others tell you.
64. (p. 119) Most perceptions, such as our interpretation that the sun "sets" rather than the earth revolves backwards, reflect our active and creative _____ of events. We see what we believe.
65. (p. 119) This fact of perception has relevancy to eyewitness testimony in court. For example, Allport demonstrated that of white subjects shown a picture of a white man holding a razor during an argument with a black man, about _____ percent of the subjects made a crucial change and reported that the black man was holding the weapon.

66. (p. 119) The same type of inaccuracies were reported when "eyewitness" subjects were interviewed following a staged attack on a college professor by an actor. The total accuracy score for the group tested was _____ percent of the maximum possible.
67. (p. 120) Psychologist Sidney Jourard offers a suggestion to help individuals increase the accuracy of their perceptions. By _____, we can obtain additional information as a check on our perceptions. This may be as simple as asking what someone thinks or feels.
68. (p. 120) Abraham Maslow has studied people who are especially alive, open, aware, and mentally healthy. He found that they are characterized by five features, one of which is a sense of _____, or immersion in the present.
69. (p. 120) They also show a noticeable lack of _____ and _____.
70. (p. 120) These individuals can be described as possessing an "_____ of vision," like that of an artist or a child.
71. (p. 120) Also, they have freedom from selecting, rejecting, criticizing, and evaluating. That is, they have few "_____" placed between themselves and events.
72. (p. 120) Finally, they are said to "_____" to experience. Experience is accepted and trusted.
73. (p. 121) One limitation, normally a helpful process in helping manage our complex sensory environment, which prevents us from being fully aware of our environment is the phenomenon of _____, that is, with repeated presentation, a stimulus is less likely to be perceived. It is "tuned out" of awareness by the nervous system.
74. (p. 121) Zen masters appear to have overcome this limitation. When their brain waves are recorded in response to repeated presentations of a "click," they _____ to show the expected habituation.
75. (p. 121) Two practical answers to how to bring about dishabituation are: _____ and _____.

SELF TEST

1. _____ is the process of assembling sensations into a usable mental representation of the world.
 - a. Learning
 - b. Conditioning
 - c. Perception
 - d. Motivation

2. An airplane in the distance appears very small, yet we know it has not shrunk. This exemplifies _____, the apparent size of an object remains the same even though the size of its retinal image changes.
 - a. perceived equality
 - b. size constancy
 - c. retinal disparity
 - d. distance invariance
3. Shape constancy is the principle whereby
 - a. an object appears to have the same shape from whichever eye it is viewed from.
 - b. an object appears to have the same shape from any distance it is viewed from.
 - c. an object appears to change shape consistently from any angle it is viewed from.
 - d. an object appears to have the same shape no matter what the lighting conditions.
4. The principle of brightness constancy reflects the fact that objects always
 - a. reflect the same relative proportion of light.
 - b. appear equally bright under all lighting conditions.
 - c. appear brighter when constantly illuminated.
 - d. appear darker when constantly illuminated.
5. True-False. Infants and new-born animals do not show evidence of depth perception; it is an acquired trait.
6. The visual cliff is
 - a. a device used in measuring depth perception.
 - b. the point on the visible spectrum where our vision begins to decline.
 - c. a mechanism in the eyeball that facilitates depth perception.
 - d. a pictorial representation of how the angles of objects determine our perception of distance.
7. Indicate (by circling) the *bodily* cues which aid in producing the experience of three-dimensional space.

| | |
|-----------------------|----------------------|
| a. linear perspective | e. texture gradients |
| b. size constancy | f. motion parallax |
| c. accommodation | g. convergence |
| d. retinal disparity | h. interposition |
8. The most important source of depth perception is
 - a. accommodation.
 - b. retinal disparity.
 - c. convergence.
 - d. divergence.
9. Which pictorial depth cue refers to the apparent convergence of parallel lines in the environment?

| | |
|-----------------------|-----------------------|
| a. relative size | c. aerial perspective |
| b. linear perspective | d. interposition |

10. If an artist wishes to depict two objects of the same size at different distances, he makes the more distant object
 - a. smaller.
 - b. larger.
 11. This defines the principle of
 - a. relative size.
 - b. shape constancy.
 - c. interposition.
 - d. size constancy.
 12. Describe how you might experience motion parallax driving on a car trip.
-
13. True-False. People who have lost one eye depend heavily on motion parallax to enhance depth perception.
 14. Circle the following factors which contribute to the moon illusion.

| | |
|-----------------------|---------------------|
| a. linear perspective | e. texture |
| b. relative size | f. motion parallax |
| c. interposition | g. convergence |
| d. aerial haze | h. light and shadow |
 15. The first perceptual ability to emerge when a cataract patient regains sight is
 - a. figure-ground organization.
 - b. size-distance invariance.
 - c. closure.
 - d. brightness constancy.
 16. Circle the following factors which facilitate the organization of sensations into a figure.

| | |
|------------------|------------------|
| a. continuity | e. nearness |
| b. closure | f. similarity |
| c. accommodation | g. convergence |
| d. attention | h. relative size |
 17. Which of the following might be used to demonstrate perceptual habits?
 - a. Muller-Lyer illusion
 - b. Ames Room
 - c. Necker's cube
 - d. visual cliff
 18. True-False. Zen masters show greater levels of habituation than most individuals.
 19. One of the main reasons why eyewitness testimony in a court may be inaccurate is because all of us demonstrate
 - a. reconstruction.
 - b. dishabituation.
 - c. sensory adaptation.
 - d. habituation.

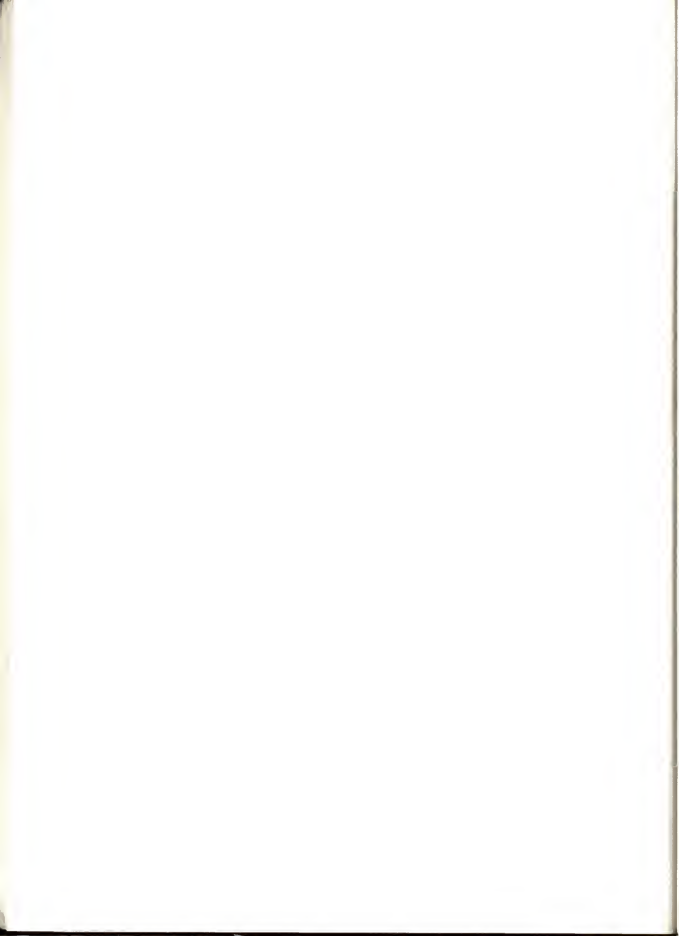
20. Which of the following phenomena exemplifies the principle of size-distance invariance?
 - a. Muller-Lyer illusion
 - b. Necker's cube
 - c. moon illusion
 - d. three-pronged widget
21. In judging size, weight, etc., you have your own personal "medium" point or frame of reference. Helson has referred to this as
 - a. adaptation level.
 - b. individual inequivalence.
 - c. perceptual expectancy.
 - d. personal measurement.
22. Circle the following factors which contribute to attention-getting qualities of stimuli.

| | |
|------------------------|--------------------------|
| a. stimulus intensity | d. stimulus constancy |
| b. stimulus contrast | e. human motives |
| c. stimulus repetition | f. perceptual expectancy |
23. True-False. Reality testing can increase perceptual accuracy.
24. The fact that you appear shorter when standing among professional basketball players than when you are standing with classmates demonstrates
 - a. perceptual expectancy.
 - b. adaptation level.
 - c. stimulus context.
 - d. relative size.
25. Inverted vision experiments with humans have shown that
 - a. with time, humans can learn to function normally with completely different visual cues.
 - b. perceptual habits are so ingrained that humans never learn to adapt to different cues.
 - c. we are like most animals in that we do adapt to the differences almost immediately.
 - d. basic physiology can be modified so that when the lens are removed, we do not recover.

ESSAY QUESTIONS

1. List each of the cues (both bodily and pictorial depth) which aid in producing a three-dimensional experience. Describe how each works and their importance to depth perception.
2. What is the moon illusion? Discuss how this relates to what we know about depth perception cues.
3. Describe the Ames Room and how it is used to demonstrate perceptual habits.

4. Discuss some of the reasons why eyewitness testimony in court can sometimes be inaccurate. Include examples from relevant research and from your own experience. How could you increase your own accuracy if you were a witness?



Altered States of Consciousness 6

TERMS AND CONCEPTS

altered states of consciousness (ASC)
extrasensory perception (ESP)
parapsychology
psychic (psi) phenomena
clairvoyance
telepathy
precognition
prophetic dreams
psychokinesis
Zener cards
hypnosis
animal magnetism
Stanford Hypnotic Susceptibility
Scale
phantom limb pain
psychoactive drugs
physical addiction
withdrawal symptoms
drug tolerance
psychological dependency

amphetamines (uppers)
Dexedrine
Methedrine
Benzedrine
amphetamine psychosis
cocaine
barbiturates (downers)
Seconal
Tuinal
Quaaludes
Sopors
drug interaction
cannabis sativa
marijuana
hashish
alcohol
detoxification
transcendental meditation (TM)
mantra
relaxation response

IMPORTANT INDIVIDUALS

Uri Geller
J. B. Rhine
Franz Mesmer

James Braid
T. X. Barber

PROGRAMMED REVIEW

1. (p. 123) _____, an Israeli psychic, claims to have the abilities to communicate by mental telepathy, to detect hidden objects, and to bend metal with "psychic energy."
2. (p. 124) An _____ of _____, or ASC, represents a distinct change in the _____ and _____ of mental functioning. They differ from normal waking consciousness with regard to: sense impressions; body image; intensity of emotion; memory; time sense; feelings of personal identity; patterns of thought; feelings of self-control; suggestibility; and the meaning attached to events.
3. (p. 124) There are many events or states that qualify as ASCs. Just a few of them include sensory _____, _____ stimulation, religious and mystical experiences, and the like.
4. (p. 124) _____ is the study of events which lie outside normal experience and seem to defy accepted scientific laws.
5. (p. 124) Such events are called _____ or _____ phenomena.
6. (p. 124) Psychologists are seeking answers to the questions which surround psychic phenomena. Four areas of investigation can be distinguished. One such area deals with _____, the ability to perceive events or gain information in ways that appear unaffected by distance or normal physical barriers.
7. (p. 124) Another area entails the study of _____, extra sensory perception of another person's thoughts.
8. (p. 124) A third area involves researching _____, the ability to perceive or accurately predict future events.
9. (p. 124) Precognition may take the form of _____ which foretell the future.
10. (p. 124) The fourth area deals with _____, the ability to exert influence over inanimate objects by "will power."
11. (p. 125) A recent Gallup Poll found that about _____ of those interviewed believe in ESP.
12. (p. 125) In determining the validity of people's claims of possession of these abilities, several problems must be considered. One of these is _____, which is described by J. B. Rhine.
13. (p. 125) Rhine reported the case of a woman who after leaving for a vacation, had a strong impulse to return home, where she found the house on fire with her husband asleep inside. If by coincidence a "hunch" proves to be

correct, it may be reinterpreted as a _____, or case of clairvoyance. If it is not confirmed, it is simply forgotten.

14. (p. 125) To avoid problems of coincidence, Rhine has used _____ to test a subject's ability to guess the symbols on the cards as they are turned up from a shuffled deck. A person who consistently scores above chance on this test is credited with ESP.
15. (p. 125) _____ is tested with the Zener cards when one person (the "sender") concentrates on a card and another person (the "receiver") tries to "read the mind" of the sender.
16. (p. 125) Unfortunately, some of Rhine's most dramatic early experiments used badly printed Zener cards on which a _____ of the symbols showed through the back.
17. (p. 125) In other experiments conducted by Rhine, there is evidence that the experimenter knew which card was correct and unconsciously gave subjects cues with their _____, _____, or _____ movements.
18. (p. 125) A second major criticism of ESP research focuses on _____ and the _____ of extrasensory skills.
19. (p. 125) It is _____ for a subject to be capable of maintaining ESP ability over any sustained period of time.
20. (p. 125) Critics argue that subjects who only temporarily show ESP have just received credit for a _____ of _____.
21. (p. 127) _____ is a trance-like, altered state of consciousness, characterized by narrowed attention and an increased openness to suggestion.
22. (p. 127) Interest in hypnosis began in the 1700s with _____, whose name is the basis for the term mesmerize.
23. (p. 127) Mesmer believed he could cure disease by passing _____ over the body of an afflicted person.
24. (p. 127) While Mesmer enjoyed quite a following for a short time, his theories of _____ were soon rejected by the medical profession.
25. (p. 127) The term hypnotism was coined later by _____.
26. (p. 127) Braid used the term hypnosis to refer to the sleep-like trance. Today we know that hypnosis is not sleep, since _____ recordings made during hypnosis are similar to those obtained when a person is awake.
27. (p. 127) Approximately _____ out of ten people can be hypnotized, but only _____ out of ten will be good hypnotic subjects.

28. (p. 127) A typical hypnotic test is the _____.
29. (p. 128) There are as many different hypnotic routines as there are hypnotists. Common factors in all techniques encourage a person to (1) focus _____ on what is being said.
30. (p. 128) Other common factors include: (2) to _____ and feel tired; (3) to "let go" and accept _____ easily; and (4) to use vivid _____.
31. (p. 128) Many theorists believe that all hypnosis is really _____ - _____ and that the hypnotist simply serves as a guide.
32. (p. 128) In all but the deepest stages of hypnosis, people remain _____ of what is going on.
33. (p. 128) Generally speaking, a person will _____ something when hypnotized that they would not normally do if not hypnotized.
34. (p. 128) However, hypnosis may _____ a person by providing an excuse to engage in prohibited behavior.
35. (p. 128) A vast array of abilities have been tested for responsiveness to hypnotic suggestion, and from this evidence we can generally conclude several things. First, hypnosis has _____ effect on physical strength than instructions that encourage a subject to make their best effort.
36. (p. 128) Next, _____ per se cannot be improved through hypnosis, but _____ and _____ in learning may be.
37. (p. 128) Findings suggest that hypnotic subjects can be instructed to _____ what occurred during the trance.
38. (p. 128) Hypnosis can relieve _____ and can be most useful in situations where chemicals are ineffective, such as control of _____ pain.
39. (p. 128) Through hypnosis subjects have _____ to childhood.
40. (p. 128) And finally, the experimental evidence indicates that hypnotic suggestions concerning _____ seem to be among the most effective.
41. (p. 129) Little or no hypnosis is necessary to do a good stage hypnosis act. _____, an authority on hypnosis, says that stage hypnotists make use of several characteristics of the stage setting including waking suggestibility, selection of responsive subjects, and certain "tricks," among others.

42. (p. 129) Another type of altered consciousness involves drugs. Perhaps the surest way to alter human consciousness is to administer a _____ drug.
43. (p. 130) A psychoactive drug is a substance capable of altering _____, _____, or _____; _____ sense; feeling of _____ over one's actions; _____ mood or expressions; and _____ (by exaggerating sensations or causing hallucinations).
44. (p. 130) Most psychoactive drugs can be placed on a scale ranging from _____ to _____.
45. (p. 130) Drugs fall into two broad categories in terms of their potential for abuse. Drugs that are _____ cause the body to undergo changes requiring additional doses of the drug in order to prevent uncomfortable _____ symptoms.
46. (p. 130) Addiction is accompanied by a drug _____, the need to take larger and larger doses to achieve the same effects initially supplied by smaller doses.
47. (p. 130) A _____ can be said to exist when an individual feels that the effects produced by a drug are necessary to maintain a state of well being, although no physical craving is involved.
48. (p. 130) Of the psychoactive drugs, heroin, morphine, codeine, methadone, barbiturates, and alcohol are all capable of producing a _____.
49. (p. 131) Two other drugs which may be physically addicting are _____ and _____.
50. (p. 131) All of the drugs discussed can lead to a _____.
51. (p. 131) Amphetamines form a large group of synthetic stimulants. Drugs commonly available in this group are _____, _____, and _____.
52. (p. 131) Amphetamines are widely prescribed by doctors to aid _____ or to combat _____.
53. (p. 131) However, the only fully legitimate medical uses of amphetamines are the treatment of _____ sickness and _____ in children.
54. (p. 131) In view of this, we must conclude that the _____ doses of amphetamines made in the U.S. each year are in large measure used for non-medical purposes by truck drivers, athletes, factory workers, and students seeking an easy way to stay awake or to temporarily improve mental or physical performance.
55. (p. 134) The dangers in amphetamine usage are multiple. Amphetamines speed the expenditure of _____. They do not magically supply energy.

56. (p. 134) The after-effects of an amphetamine high may include _____, _____, terrifying _____, _____, and uncontrolled _____ and _____.
57. (p. 134) Repeatedly "speeding" may lead to considerable _____ loss, sores and non-healing _____, brittle _____, tooth grinding, chronic chest _____, _____ disease, a variety of _____ disorders, and in some cases _____ hemorrhage.
58. (p. 134) The phrase "Speed Kills" refers mainly to the loss of contact with reality amphetamine usage may produce. This is called _____ and is similar to extreme paranoia.
59. (p. 134) Cocaine is a powerful central nervous system _____ derived from the leaves of the _____ plant.
60. (p. 134) Its subjective effects are sensations of _____, _____, well being, power, boundless energy, or exhilaration.
61. (p. 134) There is often an increase in _____, _____, and excitement, but there is no loss of _____ abilities or _____ coordination.
62. (p. 134) Cocaine and amphetamines are very much alike in their effects on the central nervous system. At high dosages the main difference is that amphetamine effects may last _____, while cocaine effects last only about _____ to _____ minutes.
63. (p. 134) At moderate doses, the effects are more like _____ than amphetamine.
64. (p. 134) At mild doses, subjects could not distinguish cocaine from a _____.
65. (p. 135) Cocaine is not physically addicting and shows little evidence of tolerance, but dangers are related to the period of emotional and physical _____ that follow a "high."
66. (p. 135) Very heavy users often suffer chronic _____, _____, and _____, and may experience " _____," disturbing sensations like bugs crawling under the skin.
67. (p. 135) In rare cases, there have been deaths related to _____ to the drug. Also rare is the possibility of _____ damage due to the fact that cocaine is usually inhaled or "snorted."
68. (p. 135) Barbiturates are _____ drugs that produce a general depression of activity in the brain.
69. (p. 135) They are used medically to _____ patients or to induce _____.

70. (p. 135) In mild doses, barbiturates have an effect similar to _____.
71. (p. 135) An overdose of barbiturates can cause _____ or _____.
72. (p. 135) Barbiturates combined with alcohol are particularly dangerous as the combined effects of the two drugs are multiplied by a _____ (one drug enhances the effect of another).
73. (p. 135) The most frequently abused downers are the new short-acting drugs such as _____, _____, _____, and _____.
74. (p. 135) A government survey recently estimated that _____ to _____ million Americans have tried marijuana and approximately _____ million people regard themselves as regular users.
75. (p. 135) Two drugs, marijuana and hashish, are derived from the hemp plant _____.
76. (p. 135) Experts agree that marijuana is not addictive, does not lead to harder drugs, does not produce psychosis, illness, or death. In short, it is far less dangerous than two legal drugs: _____ and _____.
77. (p. 136) The physiological effects of marijuana involve mild stimulation of various pathways in the _____, slower _____, bloodshot eyes, increased _____, and increased _____.
78. (p. 136) A variety of studies agree that the psychological effects of marijuana include a sense of _____, _____, altered _____ sense and impaired immediate _____.
79. (p. 136) At moderate dosage levels it appears that a user must _____ to experience any ASC. Inexperienced users report little or no change at mild or high dosages, while experienced users got "high" with both levels.
80. (p. 136) It is generally agreed that marijuana does impair _____ efficiency. Most arrests for marijuana possession occur when the user is stopped for a _____.
81. (p. 136) While there have been widespread reports that marijuana can cause brain damage, chromosomal changes and birth defects, loss of motivation, long term memory impairment, impotence in males, and a reduction of the body's natural immunity diseases, most sound research denies these claims. However, there are several factors to consider in the decision to use the drug. One is that there is still a danger of _____ associated with frequent use.
82. (p. 137) A second consideration is that smoking marijuana is at least as damaging to the _____ and _____ as cigarette smoking, and may even be more carcinogenic.

83. (p. 137) Another potential problem is the possible _____ of the drug with paraquat, PCP, or strychnine.
84. (p. 137) It can become an _____ and _____ habit much like cigarette smoking.
85. (p. 137) One final consideration is that with the exception of some states where usage has been decriminalized, it is still a _____ to possess, and in all states it is a _____ to sell.
86. (p. 137) Contrary to popular belief, alcohol is not a _____, but is instead a _____.
87. (p. 137) Alcohol, America's favorite drug, is used by over _____ million people, _____ to _____ million of whom have a life-impairing problem.
88. (p. 137) It is now estimated that _____ percent of youths between the ages of 14 and 17 are problem drinkers.
89. (p. 137) _____ percent of all drivers involved in traffic accidents resulting in death or bodily injury have blood alcohol levels of _____ percent or more.
90. (p. 138) There are several phases involved in the progression of a social drinker to a problem drinker. Four danger signs that signal excessive dependence during the initial phase are: _____; _____ drinking; _____ behavior; and _____.
91. (p. 139) During the second phase (crucial phase) there is usually control over when and where a first drink is taken, but one drink starts a _____.
92. (p. 139) Finally, at the _____ phase, the alcoholic drinks compulsively and continuously.
93. (p. 139) Treatment for alcoholism begins by sobering the person up and cutting off the supply. This procedure is referred to as _____ and frequently produces all the symptoms of drug withdrawal.
94. (p. 139) Rehabilitation of alcoholics is often a long, sometimes ineffective process. One lay-group approach that has been fairly successful is _____, which functions on the premise that it takes a former alcoholic to understand and help a current alcoholic.
95. (p. 142) One of the most popular forms of consciousness-alteration which offers a productive alternative to drug abuse is the use of _____.
96. (p. 142) Studies have shown that bodily changes during TM include less _____ consumption, slowed _____, reduced _____, and marked increases in _____ frequency brain waves.

97. (p. 142) Some individuals who practice TM use a _____, smooth flowing words which are easily repeated.
98. (p. 142) Herbert Benson believes that the benefits of meditation are the same no matter what word is used for a mantra. He believes that the core of meditation is production of the _____, an innate physiological pattern that opposes the stressful activation of the body's fight-or-flight mechanisms.
99. (p. 144) Drug abuse in the U.S. has reached epidemic proportions. One recent study of junior high students found that almost _____ - _____ claimed to have used illicit drugs. This is true in all areas, except for extremely small towns of less than 2,500 population where relatively low rates of drug use are reported.

SELF TEST

1. The study of psychic phenomena is called
 - a. psychology.
 - b. magic.
 - c. demonology.
 - d. parapsychology.
2. Indicate (by circling) which of the following are considered psychic phenomena.

| | |
|------------------|------------------|
| a. magic | e. delusion |
| b. clairvoyance | f. precognition |
| c. telepathy | g. psychokinesis |
| d. hallucination | h. cognition |
3. The ability to perceive events or gain information in ways that appear unaffected by distance or normal physical barriers is called
 - a. telepathy.
 - b. clairvoyance.
 - c. precognition.
 - d. psychokinesis.
4. The ability to read someone else's mind is called
 - a. psychokinesis.
 - b. telepathy.
 - c. clairvoyance.
 - d. precognition.
5. The ability to perceive or accurately predict future events is called
 - a. precognition.
 - b. psychokinesis.
 - c. telepathy.
 - d. clairvoyance.
6. _____ refers to the ability to exert influence over inanimate objects by will power.

- a. Telepathy
 - b. Clairvoyance
 - c. Precognition
 - d. Psychokinesis
7. True-False. Factors such as coincidence, statistics and consistency must be considered when investigating extrasensory skills.
 8. True-False. A hypnotic trance is a form of sleep.
 9. True-False. Entertainers who use hypnosis on stage are usually well trained and really do use effective hypnotic techniques.
 10. True-False. Hypnotic suggestions can be used to so convince a subject of his strength that they can perform super human acts.
 11. True-False. Hypnosis can relieve pain.
 12. Hypnotic suggestions concerning _____ seem to be among the most effective.
 - a. morality
 - b. memory
 - c. strength
 - d. sensations
 13. True-False. The continued use of almost any drug can lead to psychological dependence.
 14. The real meaning of the phrase "Speed Kills" lies in the fact that amphetamines can cause a loss of contact with reality known as
 - a. speed delusions.
 - b. hyperactive hallucination.
 - c. stimulatory neurosis.
 - d. amphetamine psychosis.
 15. Indicate (by circling) which of the following are commonly available amphetamines.

| | |
|---------------|--------------|
| a. Sopors | e. Tuinal |
| b. Methedrine | f. Quaaludes |
| c. Benzedrine | g. Dexedrine |
| d. Seconal | h. Cannabis |
 16. The combined effects of two drugs may be multiplied by a _____.
 - a. dosage excess
 - b. drug interaction
 - c. drug intolerance
 - d. drug narcosis
 17. Marijuana and hashish are derived from the hemp plant

- a. cannabis sativa.
 - b. tetrahydrocannabinol.
 - c. Acapulco gold.
 - d. Lebanese columbia.
18. True-False. Experts agree that marijuana is less harmful than alcohol or tobacco.
 19. True-False. Alcohol is a stimulant.
 20. True-False. Amphetamine psychosis resembles extreme paranoia.
 21. What percentage of all drivers involved in traffic accidents resulting in death or bodily injury have blood alcohol levels of at least .2 percent?
 - a. 53
 - b. 68
 - c. 73
 - d. 81
 22. Which of the following is most closely associated with the study of ESP?
 - a. Rhine
 - b. Mesmer
 - c. James
 - d. Barber
 23. Who coined the term hypnosis?
 - a. Mesmer
 - b. Braid
 - c. Barber
 - d. James
 24. Which of the following is a noted expert on hypnotism?
 - a. James
 - b. Geller
 - c. Rhine
 - d. Barber
 25. True-False. TM appears to be a productive alternative to drug induced altered states of consciousness.
 26. Indicate (by circling) which of the following are bodily changes which occur with TM.

| | |
|----------------------------|--------------------------------|
| a. less oxygen consumption | e. increased alpha brain waves |
| b. lowered attention span | f. greater kidney output |
| c. increased metabolism | g. slowed heartbeat |
| d. reduced respiration | h. increased muscle tension |
 27. True-False. Cocaine and barbiturates have a similar effect on the central nervous system.
 28. Which of the following is considered America's favorite drug?

- a. amphetamines
- b. marijuana
- c. quaaludes
- d. alcohol

ESSAY QUESTIONS

1. Describe the various abilities that are considered instances of ESP. Discuss the problems involved in determining the existence of such abilities.
2. What is hypnosis? Discuss what it can and cannot be used for.
3. Discuss the transcendental meditation techniques described in your text. In what ways can TM be useful?
4. Describe the general effects of the following drugs: amphetamines, barbiturates, cannabis extracts, alcohol. What ill effects may result from the use of each or from withdrawal from the drug?

Sleep and Dreaming 7

TERMS AND CONCEPTS

microsleep
sleep-deprivation-psychosis
electroencephalograph (EEG)
alpha brain waves
beta brain waves
stages of sleep
sleep spindles
delta brain waves
rapid eye movement (REM) sleep
paradoxical sleep
REM rebound effect
REM myth
somnambulist
sleepwalking
night terrors

nightmares
narcolepsy
cataplexy
insomnia
sedatives
high dream
lucid dream
condensation
displacement
symbolization
secondary elaboration
archetypes
Senoi
out-of-body experiences

IMPORTANT INDIVIDUALS

Peter Tripp
Michel Siffre
Nathaniel Kleitman
Eugene Aserinsky
William Dement
Calvin Hall
Charles Tart

Sigmund Freud
Rosslund Cartwright
Ann Faraday
Fritz Perls
Carl Jung
Kilton Stewart
Patricia Garfield

PROGRAMMED REVIEW

1. (p. 147) Peter Tripp, the New York disc-jockey who staged a "wakathon," went without sleep for _____ hours.
2. (p. 147) By 100 hours Tripp began to have visual _____; he saw cobwebs in his shoes and a doctor's tweed coat became a suit of furry worms.
3. (p. 147) By _____ hours, Tripp experienced paranoia, his memory was quite poor, and his spirit weak.
4. (p. 147) Interestingly, though Tripp was awake his brainwave patterns looked like those of _____.
5. (p. 147) By _____ hours, Tripp was no longer able to distinguish between his waking nightmare, hallucination, and reality.
6. (p. 147) In a self-experiment to determine the effects of isolation on natural rhythms of human life, _____ lived alone in Midnight Cave near Del Rio, Texas for six months.
7. (p. 147) Siffre lived by _____ rather than by days.
8. (p. 147) Each cycle was counted as the time from one _____ to the next.
9. (p. 147) At first, Siffre followed a _____ hour cycle.
10. (p. 147) Overall, Siffre's cycles averaged _____ hours.
11. (p. 147) Siffre's longest cycle was _____ hours.
12. (p. 148) In experimental studies with animals surgically prevented from sleeping, the animals fall into a _____ and _____ after several days.
13. (p. 148) Animals and humans deprived of long duration sleep will engage in _____, a momentary shift in brain activity to that characteristic of sleep.
14. (p. 149) Moderate sleep deprivation causes lapses in the ability to _____, or _____.
15. (p. 149) Longer periods without sleep may produce a temporary _____ - _____.
16. (p. 149) This condition is marked by _____, body _____, _____ of movement or vibrations in stationary objects, and visions of _____ designs like cobwebs.
17. (p. 149) Most symptoms of sleep deprivation, as with Peter Tripp and Randy Gardner, are removed by a _____ night of sleep.

18. (p. 149) Individuals who can sleep only a few hours each night are rare. In fact only _____ percent of the population averages five hours or less of sleep per night, while the majority sleep on a seven to eight hour schedule per night.
19. (p. 149) Old age usually brings about a _____ in sleep time.
20. (p. 149) In contrast, infants spend up to _____ hours a day sleeping.
21. (p. 149) Infants tend to sleep in _____ or _____ hour cycles.
22. (p. 149) Formal studies of sleep schedules generally show many short periods of sleep to be _____ efficient than sleeping once a day.
23. (p. 149) Most studies of sleep patterns show a consistent ratio of _____ to _____ between time awake and time asleep.
24. (p. 149) Experiments in which 28 hour days were set up indicate that _____ subjects find it easier to adapt to longer cycles of sleep and waking than do _____ subjects.
25. (p. 150) Early concepts of sleep linked it to _____.
26. (p. 150) It was thought that some substance accumulated in the blood stream causing sleep. But studies of _____ show that sleep is not caused by anything in the blood.
27. (p. 150) During extended wakefulness, a sleep-promoting chemical collects in the _____ and _____, not in the blood.
28. (p. 150) If this substance is extracted from one animal and injected into another, the second animal will _____. Unfortunately, this does not explain many other aspects of sleep.
29. (p. 150) Sleep is generated by activity in several important structures of the brain: the _____; _____; and a "sleep center" in the _____.
30. (p. 150) During the course of evolution, natural selection may have favored sleep due to its restoration effects. Indeed, we do know that there is a lowering of _____ and _____ during sleep which may conserve energy and lengthen life.
31. (p. 150) Furthermore, between similar animals, those with high metabolism and reduced sleep seem to have shorter life spans than those that sleep much more. This is the case in comparing shrews that typically live about _____ years with bats that live up to _____ years.
32. (p. 150) The changes that come with sleep can be measured through the use of the _____, abbreviated _____.

33. (p. 150) When a person is awake and alert, the EEG shows a pattern of _____, _____ waves called _____.
34. (p. 150) Immediately before sleep and when one is relaxed a pattern of _____ and _____ waves called _____ is observed.
35. (p. 150) There are four basic stages of sleep. During Stage I, often called _____ sleep, breathing becomes _____, the muscles of the body relax, sometimes causing a _____, and the brain wave pattern is dominated by small, irregular waves with some _____ waves.
36. (p. 150) During Stage II sleep, the EEG begins to show short bursts of activity called _____.
37. (p. 150) Stage III sleep is characterized by the appearance of a new brain wave called _____, which is very _____ and _____.
38. (p. 151) The final stage, also called _____, is characterized by almost completely pure _____ brain waves.
39. (p. 151) This pattern of four stages of sleep is repeated _____ or _____ times per night, going from I to IV and then back to I (through Stages III and II).
40. (p. 151) During each return to Stage I, the eyes of a sleeper show _____.
41. (p. 151) Subjects awakened during this return to Stage I almost always report that they were _____.
42. (p. 151) The two most basic states of sleep now appear to be _____ - _____ sleep and _____ - _____ sleep.
43. (p. 151) NREM sleep is a dream-free sleep made up of Stages _____, _____, and _____.
44. (p. 152) NREM sleep helps us recover from _____. It increases with _____ and _____.
45. (p. 152) REM sleep usually totals about _____ hours per night, but increases when a person is subjected to added daytime stress.
46. (p. 152) Dreams are spaced about _____ minutes apart, with each succeeding dream lasting a little longer.
47. (p. 152) The first dream of the evening lasts about _____ minutes.
48. (p. 152) The final dream of the morning averages _____ minutes and may last as long as _____ minutes (in real time).

49. (p. 153) Dream periods have been called _____ sleep because the sleepers look like they are about to wake up but are actually harder to arouse.
50. (p. 153) During REM sleep, outside noises and other stimuli are incorporated into dreams. For example, when dreaming subjects were sprayed with water, _____ percent reported dreams involving water.
51. (p. 153) During dreaming, the heart beats _____ and blood pressure and breathing _____.
52. (p. 153) Males usually have an _____, and females show signs of _____, even if the dream is not erotic.
53. (p. 153) Except for the _____, the body remains quite still during dreaming.
54. (p. 153) Dement has shown that when subjects are deprived of REM sleep, they show an _____ need to dream during subsequent nights.
55. (p. 153) To prevent dreaming, Dement found that he had to wake subjects _____ or _____ times by the fifth night.
56. (p. 153) The _____ effect occurs when a person has been deprived of REM sleep for several nights and then shows increased dreaming on the first uninterrupted night of sleep.
57. (p. 153) This explains why alcoholics often have horrible nightmares after they quit drinking. Alcohol _____ REM sleep and sets up a powerful rebound effect when it is withdrawn.
58. (p. 153) While deprived of dream sleep, Dement's subjects complained of _____, difficulty in _____, and feelings of _____ during the day.
59. (p. 153) For a time these and similar results led to widespread belief that a person would go crazy if permanently kept from dreaming. This belief is now called the "_____."
60. (p. 153) Recent experiments indicate that missing out on any particular sleep stage can cause a rebound for that stage. Also, daytime disturbances are generally related to the _____ of sleep lost, not the type of sleep lost.
61. (p. 153) Interestingly, _____ patients fail to show the REM rebound effect when deprived of REM sleep.
62. (p. 153) Dream sleep may provide stimulation necessary for brain development. Newborn babies spend about _____ percent of their sleeping time in REM sleep, while premature infants get up to _____ percent REM.

63. (p. 153) By age five, REM stabilizes at _____ percent, which is about the same as for an adult.
64. (p. 153) In adulthood, REM sleep may serve to restore the brain's _____ balance, integrate and store _____, prevent _____ during sleep, and process _____ events.
65. (p. 153) Sleepwalkers, or _____, usually have their eyes open and are able to respond to commands or questions.
66. (p. 154) Sleepwalking and talking occur during sleep Stages _____ and _____.
67. (p. 154) _____ are severely frightening dreams where the sleeper experiences blind panic and may hallucinate. Such experiences occur during Stage _____ sleep.
68. (p. 154) Nightmares, on the other hand, occur during _____ sleep. These are simply bad dreams that last only a short time, rather than the fifteen or twenty minutes of night terrors.
69. (p. 154) _____ is the dramatic sleep problem characterized by sudden, repeated, and irresistible "sleep attacks," when the person falls asleep for a few minutes to a few hours while standing, talking, or even driving.
70. (p. 154) Most of these individuals also suffer from _____, a sudden temporary paralysis of the muscles leading to complete body collapse.
71. (p. 154) The EEG of narcoleptics indicate that during attacks, they fall directly into _____ sleep.
72. (p. 154) An estimated _____ to _____ million Americans suffer from chronic _____, the inability to sleep, awakening too early, frequent nighttime awakenings, or some combination.
73. (p. 154) Nonprescription sleeping pills, such as _____, _____, and _____, have little or no sleep-inducing effect.
74. (p. 154) Even worse are prescription _____ (usually barbiturates), which decrease both Stage _____ and _____ sleep.
75. (p. 155) An additional problem with prescription sedatives is that a drug _____ rapidly builds so that the initial dosage becomes ineffective leading to "sleeping pill junkies" and a drug-dependency insomnia.
76. (p. 155) Temporary insomnia usually involves a cycle of arousal from worry, stress, or excitement which interferes with sleep, causing _____ which causes more arousal, and so on.
77. (p. 155) One way to beat temporary insomnia is to avoid _____ it. Get up and do something useful or satisfying.

78. (p. 155) Some insomniacs have been found to have a drop in _____ during the night. This can be avoided by having a small snack before sleeping.
79. (p. 155) Also, it has been discovered that the amino acid _____ helps put people to sleep. This substance can be found in a glass of milk.
80. (p. 155) EEG studies of chronic insomniacs show they have very _____ sleep patterns. Treatment for this usually begins with training in _____ techniques, stimulus control procedures, and establishing a regular routine.
81. (p. 156) _____, a noted authority on dreams, has collected and analyzed over 10,000 dreams.
82. (p. 156) Hall found that most dreams are extensions of _____.
83. (p. 156) Hall found that about _____ of the recorded dreams had sexual elements.
84. (p. 156) Unpleasant emotions are _____ frequent in dreams than pleasant emotions.
85. (p. 156) While dreams can be influenced by daily experiences, research shows this is not always the case. Subjects wearing red goggles did show _____ red in their dreams, but other colors continued to be present.
86. (p. 156) There is also evidence that _____ dreams during the night involve recent events, while those occurring towards _____ draw more heavily on stored images, past events, and childhood experiences.
87. (p. 156) In the high dream described by Charles Tart, individuals dream they have taken a(an) _____ drug.
88. (p. 156) In the lucid dream, the individual _____ from an ordinary dream and feels capable of normal thought and action, but remains _____.
89. (p. 156) In his analysis of dreams, Freud felt that many dreams represent _____ - _____.
90. (p. 156) Freud believed that the conscience relaxes during sleep, allowing dreams to fulfill or express _____ or _____ desires or conflicts.
91. (p. 157) Freud identified four dream processes. In the first, called _____, a single character in a dream represents several people at once.

92. (p. 157) A second means of distinguishing dream content is _____. The most important emotions of a dream may be redirected toward safe or seemingly unimportant images.
93. (p. 157) A third process is _____. Freud believed that dreams usually express symbolic images, rather than being literal in meaning.
94. (p. 157) A process called _____ is the fourth method of interpreting dreams. This refers to the tendency to reorganize a dream when remembering it.
95. (p. 157) Freud's approach is not the only one to dream analysis. His student _____ focused on learning a person's own symbolic language by studying a _____ of dreams and exploring universal images or _____ in dreams.
96. (p. 160) _____ thinks of dreams as plays and the dreamer as a playwright.
97. (p. 160) _____ suggests that one's everyday dream-life can be a source of varied experience and personal enrichment. Emphasis is placed on the overall _____ of the dream as a clue to its meaning.
98. (p. 160) _____ thinks of dreams as messages from yourself to yourself. She believes in the value of studying one's own dreams and suggests the following techniques in how to "catch a dream:"
- (1) Before retiring, plan to _____ your dreams.
 - (2) If possible, arrange to awaken _____.
 - (3) If you rarely remember your dreams, set an alarm clock to wake you up earlier.
 - (4) Upon awakening, review the images with your _____.
 - (5) Make your first _____ with your eyes closed.
 - (6) Review the dream again and record as many additional details as possible.
 - (7) Keep a permanent "dream diary."
 - (8) Remember that a number of drugs _____ dreaming.
99. (p. 161) _____ feels that dreams are a special message about what is missing in our lives. They are a means of filling in gaps in personal experience.
100. (p. 161) The dream state is one of reduced _____, and may be helpful in _____ that require a fresh point of view. Certainly individuals such as William Wordsworth, Thomas Edison, Friedrich Kekule, and Otto Loewi have found them useful for this purpose.
101. (p. 162) Anthropologist Kilton Stewart investigated the _____ of Malaysia who made dreams the heart of their culture.
102. (p. 162) After studying the dream techniques of the Senoi, Patricia Garfield has learned to help people gain _____ over their dreams using four suggested techniques. Be familiar with them.

SELF TEST

1. True-False. Humans will always follow a 24-hour sleep-wake cycle even in isolation.
2. True-False. A person who does not sleep for four days must have at least four 8-hour periods of sleep following this to regain normal functioning.
3. Indicate (by circling) which of the following are part of Freud's approach to dream analysis.

| | |
|--------------------------|--------------------------|
| a. archetypes | e. condensation |
| b. secondary elaboration | f. primary collaboration |
| c. narcolepsy | g. displacement |
| d. symbolization | h. replacement |
4. The sleep problem characterized by sudden, repeated "sleep attacks" is known as
 - a. narcolepsy.
 - b. insomnia.
 - c. cataplexy.
 - d. somnambulism.
5. True-False. The average sleep time for adults is 8 hours, but the actual needed sleep time for any individual may vary greatly from this average.
6. True-False. Sleep is caused by fatigue, which increases a sleep-promoting chemical in the blood.
7. Which brain wave pattern would be observed during waking hours?
 - a. alpha
 - b. beta
 - c. delta
 - d. theta
8. Which brain wave pattern could be recorded during deep sleep?
 - a. alpha
 - b. beta
 - c. delta
 - d. theta
9. Which brain wave pattern would be observed just prior to sleep?
 - a. alpha
 - b. beta
 - c. delta
 - d. theta
10. About how many dreams do you have each night?
 - a. 0
 - b. 1 or 2
 - c. 3 or 4
 - d. 4 or 5

11. About how many hours do your dreams total in a single night?
 - a. 0
 - b. 1 to 2
 - c. 3 to 4
 - d. 4 to 5
12. True-False. You cannot be attentive to external stimuli when you are asleep.
13. True-False. The Senoi of Malaysia are able to control their dreams.
14. True-False. Dreams may either be in color or in black and white.
15. True-False. Dreams may seem to take hours, but can actually occur in a flash.
16. Prescription sedatives can be dangerous because they alter which stages of sleep?
 - a. REM and I
 - b. REM and II
 - c. REM and III
 - d. REM and IV
17. True-False. While some do not remember their dreams, all normal individuals do dream each night.
18. True-False. Outside noises and other stimuli often become incorporated into dreams.
19. True-False. All of your body is truly relaxed and almost inactive during dream periods.
20. True-False. Sleepwalking and talking occur during dream periods, as if the person is acting out their dreams.
21. True-False. Night terrors are the same as nightmares; they both occur during REM sleep.
22. Circle the following which occur after dream sleep deprivation.
 - a. memory lapses
 - b. bladder problems
 - c. increased beta waves during waking periods
 - d. difficulty concentrating
 - e. tension
 - f. fatigue
 - g. increased need for REM sleep
23. Indicate (by circling) which of the following are effective techniques for reducing insomnia problems.
 - a. take a nonprescription sedative
 - b. drink a glass of milk
 - c. establish a regular schedule of sleeping
 - d. attack the urge to stay awake and fight to get to sleep
 - e. establish the pattern of doing nothing but sleeping in bed
 - f. go to bed earlier so you have more time to fall asleep

24. True-False. Unpleasant emotions are more frequent in dreams than pleasant emotions.
25. True-False. Dream sleep is also called paradoxical sleep because even though it occurs during the deepest stage of sleep, the dreamer is the most easily awakened.
26. True-False. Sleeping pills available without prescription have a sleep-inducing effect which can be very useful when used sparingly.
27. Which of the following analyzes dreams as plays and dreamers as playwrights?
 - a. Hall
 - b. Freud
 - c. Perls
 - d. Faraday
28. Which of the following analyzes dreams as a message from yourself to yourself?
 - a. Hall
 - b. Freud
 - c. Perls
 - d. Faraday
29. Which of the following feels that dreams are a way of filling in gaps in personal experience?
 - a. Hall
 - b. Freud
 - c. Perls
 - d. Faraday
30. Indicate (by circling) which of the following are thought to be functions of REM sleep.
 - a. provide stimulation for infant brain development
 - b. outlet for bizarre behavior among schizophrenics
 - c. restore brain's chemical balance
 - d. process emotional events
 - e. integrate and store information learned during the day
 - f. increase body metabolism
 - g. prevent sensory deprivation during sleep
 - h. relieve bodily fatigue built up during the day

ESSAY QUESTIONS

1. Describe the basic sleep cycles and their characteristics. Incorporate these into a discussion of how sleep progresses over a single night.
2. How is sleep affected by deprivation of all sleep and each stage of sleep, by increased fatigue or exercise, or by drugs such as alcohol or barbiturates?
3. Discuss Faraday's suggestions for "catching" dreams. Try this yourself and report your results.

4. Discuss the approach that each of the following takes in analyzing dreams.
- | | |
|---------|------------|
| Freud | Cartwright |
| Hall | Perls |
| Faraday | Jung |

Conditioning 8

TERMS AND CONCEPTS

classical conditioning (respondent conditioning)
unconditioned stimulus (US)
unconditioned response (UR)
conditioned stimulus (CS)
conditioned response (CR)
reflex
reinforcement
extinction
spontaneous recovery
stimulus generalization
phobia
conditioned emotional response (CER)
vicarious (second-hand) conditioning
galvanic skin response (GSR)
instrumental (operant) conditioning

Skinner Box
shaping
successive approximations
stimulus control
stimulus discrimination
schedules of reinforcement
continuous reinforcement
partial reinforcement
partial reinforcement effect
fixed ratio (FR)
variable ratio (VR)
variable interval (VI)
fixed interval (FI)
instinctive drift
behavioral engineering

IMPORTANT INDIVIDUALS

Ivan Pavlov
E. B. Twitmeyer
John Watson
B. F. Skinner

Tom Verhave
Paul Graubard
Harry Rosenberg
Keller and Marion Breland

PROGRAMMED REVIEW

1. (p. 167) A relatively permanent learned behavior is called a habit.
2. (p. 168) The first person credited with the study of classical conditioning was Ivan Pavlov.
3. (p. 168) The person most closely associated with the development of classical conditioning was Pavlov.
4. (p. 168) In his classical conditioning experiments, Pavlov taught dogs to salivate to the sound of a bell rung before meat powder was given to the dogs. Meat powder is considered to be the unconditioned stimulus.
5. (p. 168) The bell is called the condition stimulus.
6. (p. 168) A dog naturally salivates when food is placed in its mouth. Such "built in," automatic, unlearned responses are called unconditioned.
7. (p. 168) Pavlov called salivating to the meat powder the unconditioned response.
8. (p. 168) Salivating to the sound of the bell alone is called the conditioned response.
9. (p. 169) In classical conditioning, the connection between a conditioned stimulus and a conditioned response is reinforced when the conditioned stimulus is followed by an unconditioned stimulus.
10. (p. 169) When the conditioned stimulus is presented many times without being followed by an unconditioned stimulus, the conditioned response will be extinguished.
11. (p. 170) When the conditioned stimulus is presented many times without the unconditioned stimulus until no conditioned response occurs, this process is called extinction.
12. (p. 170) However, the next day following extinction, presentation of the conditioned stimulus may elicit an initial response. This is called spontaneous recovery.
13. (p. 170) Once a subject is conditioned to respond to a particular conditioned stimulus, other stimuli similar to the CS may cause a response. This is called generalization.
14. (p. 171) The American behaviorist who demonstrated transfer of fear responses from a conditioned stimulus to other similar stimuli was Watson.
15. (p. 171) A reflex is a dependable, inborn stimulus-response connection.
16. (p. 171) A phobia is a fear which persists even when no realistic danger exists.

17. (p. 171) Such fears may be learned through classical conditioning and are then referred to as conditioned emotional responses, abbreviated CERs.
18. (p. 172) When a person learns to react emotionally to the experiences of others it is called Vicarious conditioning.
19. (p. 172) This was illustrated by Bandura and Rosenthal's experiment in which subjects were required to observe other people supposedly being severely shocked during presentations of a light. When later tested with the light, the observing subjects showed changes in their galvanic skin response, abbreviated GSR.
20. (p. 173) Foremost among psychologists who have contributed to the precision of our understanding of instrumental (operant) learning is Skinner.
21. (p. 173) The basic principle of instrumental (operant) learning is that an act that is instrumental in producing reward tends to be repeated.
22. (p. 173) Skinner prefers the term operant conditioning to emphasize that operant responses are voluntary while classically conditioned responses are learned reflexes.
23. (p. 173) Most laboratory research on operant conditioning takes place in some form of conditioning chamber, a cage-like chamber with bare walls except for a metal lever and a tray from which food pellets may be dispensed.
24. (p. 174) When we reward responses that come closer and closer to the final desired pattern, the process is called shaping.
25. (p. 174) The basic principle of shaping is that gradual or successive approximations to the desired responses are rewarded.
26. (p. 174) If a learned response is not reinforced, it gradually drops out of an organism's behavior. Such a process is called extinction, just as in classical conditioning.
27. (p. 174) If a rat is removed from a Skinner Box and allowed to rest after bar pressing is extinguished, he will begin pressing the bar when returned to the Skinner Box. This brief return of a habit following extinction is called spontaneous recovery.
28. (p. 175) Responses that are rewarded in a particular situation tend to come under the control of stimuli present during conditioning. This is called stimulus control.
29. (p. 175) The stimulus which follows a response determines whether or not the response will be repeated. This is the principle of reinforcement.

30. (p. 175) The stimuli which precede a rewarded response control when and where the response will occur.
31. (p. 175) Stimuli similar to those which precede a rewarded response also tend to produce a response. This is called generalization.
32. (p. 175) association together with extinction gives rise to discrimination.
33. (p. 175) A stimulus similar to one present during conditioning may produce a response also. But if the response is extinguished in the presence of the new stimulus, the tendency to respond to the new stimulus will drop out. This process of reward and nonreward leads to stimulus discrimination.
34. (p. 175) When rewards are programmed to occur contingent upon some response, the programming of rewards is called a schedule of reinforcement.
35. (p. 175) Continuous reinforcement means that reward follows every response.
36. (p. 176) Reward which does not follow every response is called partial reinforcement.
37. (p. 176) Partial reinforcement while acquiring a response makes the response very resistant to extinction. This is called the partial reinforcement effect.
38. (p. 177) One reason for this effect is that since acquisition on a schedule of partial reward includes long periods of nonreward, it is harder to discriminate between conditions of reward and nonreward.
39. (p. 177) If we follow every third, fourth, fifth, or Nth response with a reward, the reinforcement schedule is fixed ratio.
40. (p. 177) A fixed ratio schedule where every 10th response is rewarded would be symbolized FR₁₀.
41. (p. 177) The most prominent characteristic of FR schedules is that they produce extremely high rates of responding.
42. (p. 177) If instead of rewarding every 5th response exactly, subjects receive reward every 5th response on the average, the schedule of reinforcement is variable ratio, which is symbolized VR.
43. (p. 177) Relative to FR schedules, VR schedules produce lower rates of responding and greater resistance to extinction.
44. (p. 177) If a subject has to wait a set amount of time from their last rewarded response before responding is again rewarded, the schedule of reinforcement is called fixed interval, abbreviated FI.

45. (p. 177) This type of schedule produces moderate response rates characterized by periods of activity and inactivity.
46. (p. 178) When subjects are rewarded for the first response made after a variable amount of time has passed, the schedule is variable interval, abbreviated VI.
47. (p. 178) This type of schedule produces tremendous response to extinction and slow steady rates of responding.
48. (p. 180) There are many everyday applications for conditioning principles. One of these is conditioning pets to come on command. An effective technique is to give a distinctive call during feeding so that the call becomes a conditioned stimulus for reward (food). Using this call at other times serves as a command for the animal to approach.
49. (p. 180) One reason why dogs often beg at the table is that they occasionally have been rewarded for doing so. Thus, they have been rewarded on a partial schedule, which is very resistant to extinction.
50. (p. 180) Verhave, like Skinner, has conditioned animals in industrial settings to make stimulus discriminations. Skinner developed a pigeon air guidance system, while Verhave taught pigeons to perform at a 99 percent level of accuracy as pull inspectors.
51. (p. 181) Conditioning in business often focuses on reinforcement schedules. For example, productivity (and often satisfaction) has been shown to increase when a fixed ratio (or piecework) schedule is used instead of a fixed interval (or straight salary) schedule.
52. (p. 181) Attention from parents is a very powerful reinforcer for children. Parents may knowingly reinforce attention seeking in children by ignoring them when they are quiet or are playing constructively.
53. (p. 182) In helping teach a child not to engage in negative attention-seeking behavior (such as tantrums), the key is consistency.
54. (p. 182) Attention and operant conditioning procedures can be used to accomplish such feats as controlling the position that a teacher lectures from and, more constructively, helping socially outcast students better relate to others, as in the work of Grunbaum and Kornberg.
55. (p. 183) Applying conditioning principles beyond the learning lab is rarely simple. The Brelands' experience in training an FR₂ schedule with a raccoon illustrates this. The behavior they wished to condition was intruded upon by innate behavior patterns. They called this problem instinctive drift.
56. (p. 183) Complexities also arise in the use of conditioning principles with humans. This was demonstrated in the Twin Oaks community where Skinner's principles of behavioral engineering were applied.

57. (p. 183) The turnover rate the first year was close to 70 percent, with the most incompetent members being the first to leave.

SELF TEST

A young child is bitten by a dog and later fears all dogs, but not all animals. Answer the following questions with reference to this event.

1. What is the unconditioned stimulus? The bite
2. What is the conditioned stimulus? The dog
3. What is the conditioned response? fear of all dogs
4. The child's fear of all dogs illustrates
 - a. ☒ stimulus generalization.
 - b. spontaneous recovery.
 - c. stimulus discrimination.
 - d. vicarious conditioning.
5. The child's fear of all dogs, but not all animals, illustrates
 - a. stimulus generalization.
 - b. successive approximation.
 - c. ☒ stimulus discrimination.
 - d. resistance to extinction.
6. The child's fear of dogs illustrates a(an)
 - a. unconditioned response.
 - b. ☒ conditioned emotional response.
 - c. GSR.
 - d. PRE.
7. Classically conditioned responses are
 - a. ☒ learned reflexes.
 - b. involuntary reactions.
 - c. emitted behaviors.
 - d. unlearned reflexes.
8. Extinction occurs when which of the following connections is broken?
 - a. CS-CR
 - b. ☒ CS-UCS
 - c. CR-UCR
 - d. UCS-UCR
9. Removal of which element in classical conditioning produces extinction?
 - a. CS
 - b. ☒ UCS
 - c. CR
 - d. UCR

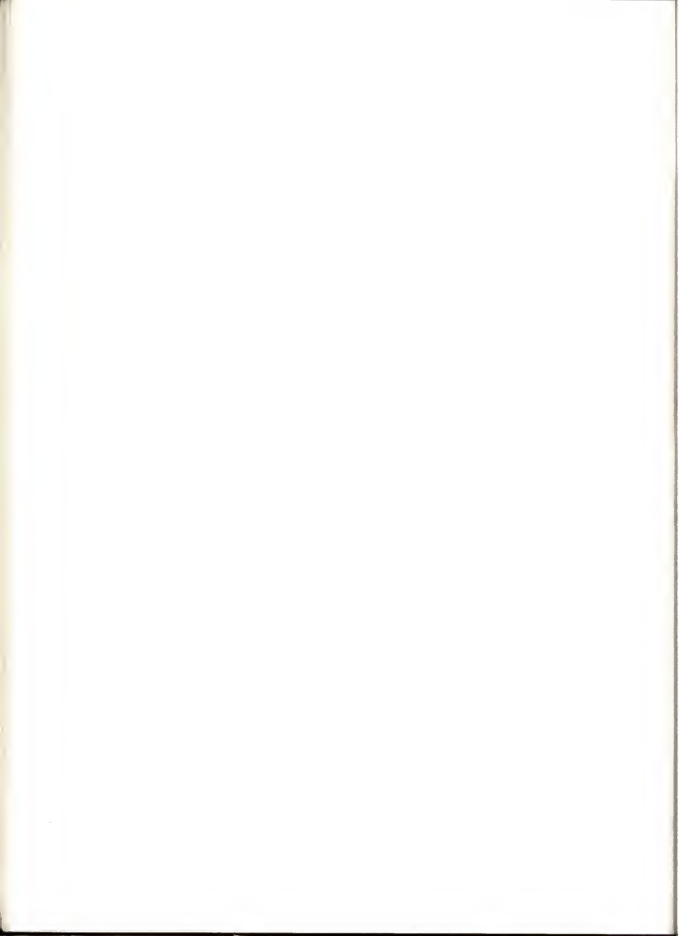
10. Teaching a child to hold, lift, and then eat from a spoon by rewarding successive approximations illustrates
- ☒ a. shaping.
 - b. classical conditioning.
 - c. vicarious conditioning.
 - d. stimulus control.
11. ☒ True-False. The GSR can be used as a measure of CER.
12. What does FI₁₀₀ symbolize?
Fixed interval of reward every 100 times.
13. Refer to Watson's experiment with little Albert. Define each of the following as they apply to little Albert's fear.
- a. CS white rat
 - b. UCS loud noise
 - c. UCR fear
 - d. CR fear of white rat
 - e. generalization fear of all white things
 - f. CER fear attached to all white things
14. ☒ True-False. Instinctive drift refers to the use of partial schedules to produce long chains of behavior.
15. Beating a dog when it doesn't come when immediately called makes calling the animal a conditioned stimulus for fear and withdrawal.
16. The key principle in using rewards to modify behavior is
- a. developing rapport with the subject.
 - ☒ b. consistency in giving and withholding rewards.
 - c. not letting the subject know that (s)he's being manipulated.
 - d. giving rewards when it is most convenient for the experimenter.
17. ☒ True-False. Experiments in behavioral engineering at Twin Oaks demonstrate that conditioning humans is an easy matter.
18. Pavlov's dogs salivated to the presence of the meat powder because
- a. they had learned to do so prior to the experiment.
 - b. they associated the meat powder with the presentation of the bell.
 - ☒ c. it was a naturally elicited, reflex response.
 - d. that was what Pavlov wanted them to do.
19. ☒ True-False. Stimulus control refers to the fact that stimuli which precede a reward tend to control the response on future occasions.
20. The procedure in which the reward no longer follows the response is called
- a. reinforcement.
 - ☒ b. extinction.
 - c. discrimination.
 - d. shaping.

21. The result of the above procedure is
 - a. an increase in the response.
 - b. no change in the response.
 - ☒ c. a decrease in the response.
 - d. a delay in the response.
22. When a complex act is taught by reinforcing small parts of the complete act, the technique used is called
 - a. vicarious conditioning.
 - ☒ b. shaping.
 - c. reinforcement scheduling.
 - d. stimulus control.
23. Schedules of partial reinforcement, as contrasted with continuous reinforcement, produce
 - a. equally fast learning.
 - b. more rapid shaping.
 - c. more rewards per time.
 - ☒ d. slower extinction.
24. Which factors produce discrimination?
 - a. reinforcement and stimulus control
 - ☒ b. generalization and extinction
 - c. shaping and observation
 - d. generalization and stimulus control
25. A gambler playing the slot machine in Las Vegas is being reinforced on a
 - a. continuous reinforcement schedule.
 - b. fixed ratio.
 - c. variable interval.
 - ☒ d. variable ratio.
26. When an extinguished habit reappears following a period of separation from the training situation, this is called
 - a. stimulus generalization.
 - b. stimulus control.
 - ☒ c. spontaneous recovery.
 - d. stimulus discrimination.
27. When you learn by observing others, the process is called
 - a. classical conditioning.
 - ☒ b. vicarious conditioning.
 - c. operant conditioning.
 - d. shaping.
28. When a child calls all animals "doggie," this illustrates
 - ☒ a. stimulus generalization.
 - b. stimulus control.
 - c. stimulus discrimination.
 - d. stimulus substitution.

29. Which of the following would most likely be acquired via classical conditioning?
- a. conditioned emotional responses
 - b. bar pressing
 - c. maze running
 - d. attention-seeking

ESSAY QUESTIONS

1. Describe the similarities and differences between classical and operant conditioning.
2. Discuss how different schedules of reinforcement produce differences in behavior, including patterning and frequency of responding, resistance to extinction, etc.
3. Describe how to use learning principles to train your dog to sit up.
4. Describe how resistance to extinction and schedules of reinforcement apply to child-rearing.



Learning 9

TERMS AND CONCEPTS

instinctual behavior
innate behavior
fixed action pattern (FAP)
species specific behavior
learning
reinforcer
positive reinforcement
negative reinforcement
primary reinforcer
secondary reinforcer
brain stimulation
tokens
generalized reinforcer
delay of reinforcement
superstitious behavior
feedback (knowledge of results—KR)
programmed instruction
computer-assisted instruction (CAI)
biofeedback

alpha brain wave
electroencephalograph (EEG)
punishment
escape learning
avoidance learning
cognitive learning
cognitive map
latent learning
learning set (learning to learn)
modeling (observational learning)
motor learning
chains of responses
reminiscence
spaced practice
massed practice
transfer of training
 positive transfer
 negative transfer
negative practice

IMPORTANT INDIVIDUALS

Omar Khayyam Moore
Neal Miller
Elmer and Alyce Green

Joseph Kamiya
Albert Bandura

PROGRAMMED REVIEW

1. (p. 185) Dr. Omar Moore has designed a response learning task to take advantage of children's intellectual curiosity and creativity in teaching reading, writing, typing, et cetera.
2. (p. 185) In Moore's lab, children encounter a "talking" typewriter that first helps them learn to identify letters and later to compose and type sentences, stories, and stories.
3. (p. 186) When a complicated pattern of behavior is inborn it may be referred to as instinctual.
4. (p. 186) A less controversial label describes any behavior that appears to be unlearned as instinctive.
5. (p. 186) The simplest innate behavior is a reflex.
6. (p. 186) The weaver bird's knot-tying is an example of a fixed action pattern, abbreviated FAP. This is a stereotyped series of movements found in all members of a species.
7. (p. 186) Most psychologists reject the idea that people have instincts because they must be more complex than a reflex and must be specific species.
8. (p. 187) Learning is a relatively permanent change in behavior due to experience.
9. (p. 187) Practice is important to learning, but must include some form of reinforcement.
10. (p. 187) A reinforcer is any stimulus that increases the probability of a response that follows.
11. (p. 187) Reinforcers may operate in two basic ways. positive reinforcement occurs when a reward or pleasant event follows an action.
12. (p. 187) Negative reinforcement also rewards a response, but it does so by ending discomfort.
13. (p. 187) Primary reinforcers are unlearned rewards that apply almost universally to a species. They are usually biological in nature and produce comfort or end discomfort, such as food, water or sex.
14. (p. 187) An unusual form of primary reinforcement is shown by studies in which rats can be trained to bar press to receive direct stimulation of the brain's pleasure centers.
15. (p. 188) Secondary reinforcers are learned reinforcers, such as money, praise, attention, approval, success, affection, and grades.

16. (p. 188) Secondary reinforcers become rewards by being associated with primary rewards.
17. (p. 188) Secondary reinforcers may also gain their value more directly when they can be substituted for primary reward.
18. (p. 188) Experiments with chimpanzees showed that chips became secondary reinforcers because they could be exchanged for primary rewards.
19. (p. 189) When a secondary reinforcer has value which appears almost independent of its connection to other rewards, it is called a generalized reinforcer.
20. (p. 189) Reinforcement has its greatest effect on learning when the time lapse between a response and the reward is short.
21. (p. 189) Experiments show that when reward is delayed, learning is retarded or does not occur at all.
22. (p. 189) Humans are less susceptible to this problem because they are able to anticipate future reward.
23. (p. 190) Also, because a single reward can often maintain a long chain of responses.
24. (p. 190) When behaviors develop as a result of reinforcement, but actually have nothing to do with bringing about reinforcement they are called superstitious behaviors.
25. (p. 190) These types of behavior may be very persistent because they pay off to the person or animal.
26. (p. 191) Particularly important to human learning is the value of feedback, information about what effect a response has had.
27. (p. 191) Increasing feedback, also called knowledge of results, or KR, generally leads to faster learning or improved performance.
28. (p. 191) Recently, several new applications of feedback have been developed. One of these is programmed instruction which gives information to students in a format that requires precise answers about information as it is presented.
29. (p. 191) This approach breaks learning into a series of small steps and provides feedback to correct errors. It also minimizes incorrect responses.
30. (p. 191) In computer - assisted instruction, abbreviated CAI, an individual computer terminal transmits lessons to a display screen while the student responds by typing answers on a keyboard or by touching the display screen with an electronic pencil.

31. (p. 192) The computer can provide immediate feedback on the screen and over earphones and can analyze each answer so that additional information and questions can be given when an error is made.
32. (p. 192) Examples of "involuntary" functions which yoga and Zen masters can control include heart rate, blood pressure, oxygen consumption, and temperature regulation.
33. (p. 192) These involuntary functions can now be self-controlled using biofeedback, the application of the general principle of feedback to the control of bodily responses.
34. (p. 193) Yoga and Zen masters use relaxation to make the mind and body very quiet so that the individual can focus on tiny changes in bodily functioning.
35. (p. 193) Biofeedback involves electronically monitoring bodily processes and converting that into a signal that provides people with clear feedback about what their bodies are doing.
36. (p. 193) Neal Miller and his associates have found that almost any bodily function can be voluntarily controlled if feedback or reward follows changes in the function.
37. (p. 193) In one experiment, rats rewarded for changes in heart rate showed either a 20 percent increase or decrease depending upon which change was rewarded.
38. (p. 193) Miller has also shown that rats can learn to change their blood pressure, blood glucose to their stomach and kidneys, and to control the frequency of stomach movements.
39. (p. 193) Elmer and Alyce Green have had success in training people to prevent migraine headaches using biofeedback.
40. (p. 193) Early successes with biofeedback led many to predict that it would be useful with a long list of ailments. While it does have some definitely positive effects in many cases, it is not an instant cure. In fact, some skeptics argue that many of the benefits reported may simply reflect general relaxation.
41. (p. 193) Alpha waves are one of several distinctive patterns of brain activity that can be recorded with the electroencephalon, abbreviated EEG.
42. (p. 194) Joseph Kamiya developed a technique whereby subjects are signaled by a tone or light whenever they produce alpha waves.
43. (p. 194) Subjects in alpha-control experiments report that high levels of alpha are accompanied by sensations of pleasure, relaxation, etc.

44. (p. 194) Punishment is one of the most popular ways to influence behavior in our society. Its effectiveness depends greatly on its duration, intensity, and consistency.
45. (p. 194) Punishment is most effective when it occurs while a response is being made, or immediately afterward. Also, consistency is important.
46. (p. 194) Severe punishment can be extremely effective in stopping behavior. More often, however, punishment only temporarily suppresses a response.
47. (p. 194) If the punished behavior is still reinforced, it will usually reappear.
48. (p. 195) Three tools useful in controlling simple learning are: (1) reward, which strengthens habits; (2) nonreward, which causes habits to be extinguished; and (3) punishment, which suppresses habits but does not weaken them.
49. (p. 195) Punishment is most effective when it produces responses involuntary with the undesirable response.
50. (p. 195) The basic problem with punishment is that it is usually aversive. As a result, people and situations associated with punishment may also be feared or resented.
51. (p. 196) Escape learning reflects the operation of negative reinforcement. If a dog is placed in a two-compartment cage and shocked in one of the compartments, it will quickly learn to jump to the second compartment to escape the shock.
52. (p. 196) If a buzzer is sounded ten seconds before the shock is turned on, the animal will learn to jump before the shock begins. This is known as avoidance learning.
53. (p. 196) The avoidance response is very persistent. Apparently it is reinforced by a reduction in fear the dog feels when the buzzer sounds.
54. (p. 196) Another problem with punishment is that it can greatly increase aggression.
55. (p. 196) Researchers have shown that animals consistently react to pain by attacking whomever or whatever else is around.
56. (p. 196) Punishment may produce frustration, which in turn leads to increased aggression.
57. (p. 197) Human learning usually includes a large cognitive dimension, being affected by expectations, perceived relationships, mental images, etc.
58. (p. 197) Cognitive learning, then, refers to understanding, knowing, anticipating, or otherwise making use of higher mental processes, and extends into the

realms of memory, thinking, problem solving, and the use of concepts and language.

59. (p. 197) A cognitive map is an internal representation of relationships that acts as a guide in gaining an overall mental picture of some stimulus complex.
60. (p. 197) Cognitive learning is closely related to latent learning where learning sometimes occurs with no obvious reinforcement at all.
61. (p. 198) Learning in this situation may be related to the satisfaction of curiosity or to the end of boredom. In humans, this phenomenon is probably related to higher level abilities like anticipation of future reward.
62. (p. 198) Another interesting cognitive effect is demonstrated by animal experiments in which subjects develop a learning set, or preparedness for further learning.
63. (p. 198) After several hundred trials and many new problems, subjects will solve a new problem on the first or second trial. This phenomenon is also known as learning to learn.
64. (p. 198) Much of what is meant by cognitive learning is summarized by the word understanding. Experiments show that students acquiring discovery learning skills through insight are better able to solve unusual problems than those students learning by rote (repetition and memorization of facts or rules).
65. (p. 198) Bandura has studied learning through imitation, which is often called modeling or observational learning.
66. (p. 198) Modeling can be used to: (1) learn new responses; (2) learn to carry out or avoid previously learned responses, depending on what happens to the model for doing the same things; or (3) learn a general rule that can be applied to various situations.
67. (p. 198) For observational learning to occur, several things must take place. The learner must pay attention to the model and remember what was done. Then the learner must be able to reproduce the learned behavior.
68. (p. 199) If a model is successful or rewarded, the learner is more likely to imitate the behavior.
69. (p. 199) This is also the case for models who are attractive, rewarding, prestigious or high in status.
70. (p. 199) This phenomenon was demonstrated in a classic experiment where children either saw a live model, a filmed model, or a cartoon version of a model displaying aggression toward a blow-up "Bo-Bo" doll. When later frustrated and allowed to play with the Bo-Bo doll, most imitated the

attack. The cartoon was only slightly less effective in encouraging aggression than the live model and the filmed model.

71. (p. 199) For children the greatest source of modeling is that of parents behavior.
72. (p. 200) Motor skills can be thought of as long chains of responses assembled into smooth and practically automatic performances.
73. (p. 200) When one response serves as a cue to produce the next response, which becomes the cue for the next, etc., we are speaking of a chain of responses.
74. (p. 201) Generally, motor skills tend to be retained better than other types of learning, probably because they are less likely to conflict with one another.
75. (p. 201) Improvement of a motor skill after practice is called remission, which probably reflects the absence of fatigue present at the end of practice.
76. (p. 201) Since performance improves after a short rest, motor learning proceeds most efficiently using spaced practice rather than massed practice.
77. (p. 201) Gagne and Fleishman have offered five rules to aid in motor-skill learning. They are: (1) practice should be as ifelike as possible so that artificial habits and "wrong" stimuli do not become part of the skill; (2) someone experienced in the skill should direct attention to correct responses when they occur so you know how it looks and feels; and (3) learn in stages rather to back up motor learning.
78. (p. 202) Two additional principles also helpful when developing a skill are: (1) begin by learning units that can be practiced with some success; and (2) when possible it is better to practice natural units rather than breaking the task into artificial parts.
79. (p. 202) Transfer of training is the effect which results when mastery of one task affects the ability to acquire a new task. Positive transfer is said to result when mastery of one task aids mastery of a second task.
80. (p. 202) An intuitive application of this principle is the graduated length method used by skiers in which short, easily managed skis are used first and then gradually replaced by progressively longer skis as skill is developed.
81. (p. 202) In negative transfer, skills developed in one situation conflict with those required for mastery of a new task. Learning to back a car with a trailer attached is a good example.

82. (p. 204) There are several techniques which you can use to break a bad habit. The place to begin is by discovering what is reinforcing the habit and remove, avoid, or change the reinforcement.
83. (p. 204) Another suggestion is to try to get the same reinforcement with new responses. For example, instead of being rewarded with peace and quiet for yelling at her children, a young mother might achieve the same rewards by reinforcing the children when they are quiet and playing constructively.
84. (p. 205) Another way to control the habit is to avoid or remove down cues that elicit the habit. To help reduce smoking, remove many of the cues such as ashtrays, matches, and extra cigarettes. Also, try smoking only in one place, such as an uninteresting room at home.
85. (p. 205) Making an incompatible response in the presence of stimuli that usually precede the bad habit can also be useful. Someone who bites their nails in particular situations could learn to put their hands in their pockets, chew gum, comb their hair, et cetera.
86. (p. 205) Negative practice involves deliberately repeating a bad habit until it becomes boring, painful, or produces fatigue.
87. (p. 206) Televised violence has been an issue of some concern, given that about 80 percent of all TV programs contain acts of violence (cartoons are 6 times more violent per hour than the average adult program).
88. (p. 206) These figures are dramatic given that by the end of high school, the average person will have viewed some 15,000 hours of TV including some 18,000 murders and countless acts of robbery, arson, bombing, torture, and beatings.
89. (p. 206) Hundreds of studies involving over 10,000 children all point to the conclusion that if large groups of children watch a great deal of televised violence, they will be more prone to behave aggressively.
90. (p. 206) Not only does TV encourage violence, it may also lower sensitivity to violent acts. Victor Cline found that among groups of boys shown a brutal and bloody fight scene, those boys who averaged 42 hours per week of TV viewing showed much less emotion compared to those boys who watched little or no TV.
91. (p. 207) TV can also be a vicarious model. For example, in one experiment, children who watched a TV program emphasizing helping were more willing than others to help a puppy in distress, even when it meant skipping a chance to win prizes.

SELF TEST

1. ☒ True ☐ False. The simplest innate behavior is a reflex.
2. Indicate (by circling) which of the following are factors necessary to define a behavior as instinctual.
 - ☒ a. at least as complex as a FAP
 - ☐ b. involve a cognitive element
 - ☐ c. demonstrate negative transfer to other behaviors
 - ☒ d. be species specific
3. Indicate (by circling) which of the following are important in learning.

| | |
|---|--|
| <input checked="" type="radio"/> a. feedback | <input type="radio"/> e. EEG |
| <input type="radio"/> b. brain wave patterns | <input checked="" type="radio"/> f. KR |
| <input checked="" type="radio"/> c. reinforcement | <input type="radio"/> g. instincts |
| <input checked="" type="radio"/> d. practice | <input type="radio"/> h. superstition |
4. Indicate (by circling) which of the following can be changed using biofeedback.
 - ☒ a. blood pressure
 - ☒ b. frequency of stomach contractions
 - ☒ c. brain wave patterns
 - ☐ d. memory
 - ☒ e. heart rate
 - ☐ f. visual accuracy
 - ☒ g. bloodflow to the stomach or kidneys
 - ☒ h. muscle tension
5. Brain wave patterns can be recorded using the _____ machine.
 - ☐ a. EKG
 - ☐ b. EMG
 - ☒ c. EEG
 - ☐ d. EGG
6. Food, water, and sex are all examples of _____ reinforcers.
 - ☐ a. secondary
 - ☒ b. primary
 - ☐ c. stimulatory
 - ☐ d. generalized
7. Money, praise, attention, affection, and grades are all examples of _____ reinforcers.
 - ☒ a. secondary
 - ☐ b. primary
 - ☐ c. negative
 - ☐ d. stimulatory
8. Of the following, which is an example of a generalized reinforcer?
 - ☐ a. food
 - ☐ b. sex
 - ☒ c. money
 - ☐ d. grades

9. True/False. A reward will reinforce only the last response which precedes it, not any other response that may occur shortly before the reward is obtained. This is the principle behind superstitious behavior.
10. True/False. The longer the interval between a response and a reward, the greater the learning, since subjects have more time to think about the response.
11. True/False. Punishment is most effectively applied when everyone has had a chance to cool down and review the situation, rather than immediately after an undesirable behavior has occurred.
12. Mild punishment usually _____ behavior.
 - a. suppresses
 - b. weakens
 - c. facilitates
 - d. abolishes
13. Punishment is most effective when it produces a response _____ with the undesirable response.
 - a. compatible
 - b. incompatible
 - c. along
 - d. commensurate
14. True/False. Children who receive a lot of punishment from parents or teachers tend to be well disciplined, good students who respect and like their authority figures.
15. Punishment can increase _____.
 - a. aggression
 - b. learning
 - c. cooperation
 - d. withdrawal
16. True/False. Studies have shown that animals consistently react to pain by attacking whomever or whatever else is around.
17. Improvement of a motor skill after practice is called _____.
 - a. redundancy
 - b. overlearning
 - c. reminiscence
 - d. rehearsal
18. True/False. Massed practice facilitates motor learning since less is forgotten between trials.
19. List the five rules given by Gagne and Fleishman which aid motor skill learning.

Practice should be as variable as possible.

Someone experienced should be there to correct errors.

Use a gradual pace to build up motor learning.

Use as many as 10-15 trials per practice unit.

Practice in natural units.

20. _____ learning occurs with no obvious reinforcement of the correct response.
a. Latent
b. Cognitive
c. Motor
d. Verbal
21. In latent learning experiments, the concept of _____ is used in explaining how rats learn to make correct responses in the absence of reward.
a. cognitive maps
b. superstitious behavior
c. response chains
d. observational learning
22. Which of the following is most closely associated with observational learning research?
a. Harlow
b. Tolman
c. Bandura
d. Munn
23. Circle the factors below that determine whether a person will duplicate the response of a model.
a. whether the model was rewarded or punished for the response
b. models who are rewarding, prestigious, or competent
c. models who possess high status
d. models who have control over rewarding resources
24. When you deliberately repeat a bad habit until it becomes boring, painful, or produces fatigue so as to break the habit, the technique is called _____.
a. habit reversal
b. negative practice
c. modified punishment
d. negative repetition
25. Programmed instruction and computer-assisted instruction are examples of new applications of
a. negative reinforcement.
b. escape learning.
c. modeling.
d. KR.
26. When mastery of one task adversely affects the acquisition of a new task, this is known as
a. learning set.
b. positive transfer.
c. negative transfer.
d. negative practice.

27. Escape and avoidance learning are maintained by
- positive reinforcement.
 - primary reinforcement.
 - generalized reinforcement.
 - ☒ negative reinforcement.
28. True-False. Reminiscence refers to the positive thoughts one has after successfully completing a difficult task.
29. True-False. Viewing TV violence has been shown to increase aggression in children.
30. True-False. Biofeedback can be used in preventing migraine headache.

ESSAY QUESTIONS

- How does biofeedback work and what alterations can it produce?
- Discuss the advantages and disadvantages of using reward or punishment to alter behavior.
- Describe how to apply learning principles to breaking bad habits. Discuss each of the techniques outlined in the text.
- What is modeling and how does it relate to TV viewing? What factors affect whether modeled behavior will be repeated?

Memory 10

TERMS AND CONCEPTS

tip-of-the-tongue phenomenon

recall

recognition

relearning

reintegration

eidetic imagery

nonsense syllables

curve of forgetting

sensory (super short-term) memory (SSTM)

short-term (working) memory (STM)

long-term memory (LTM)

digit-span test

chunking

coding

rehearsal

retroactive inhibition

proactive inhibition

repression

suppression

flashbulb memories

retrograde amnesia

consolidation

electroconvulsive shock (ECS)

hippocampus

engram

serial position effect

mnemonics

IMPORTANT INDIVIDUALS

A. R. Luria

Herman Ebbinghaus

H. F. Spitzer

Wilder Penfield

George Miller

Roger Brown

James Kulik

Brenda Milner

PROGRAMMED REVIEW

1. (p. 209) The experience of having an answer or a memory just out of reach is sometimes called the Tip - of - the - tongue phenomenon.

2. (p. 209) It is an example of partial memory called recognition.
3. (p. 209) To recall means to remember and reproduce important facts and information verbatim.
4. (p. 209) A type of recall is required when you take a(n) essay examination.
5. (p. 209) A multiple-choice examination is based on a testing procedure called recognition. It is a more sensitive measure of memory than recall.
6. (p. 210) Testing memory by repetition shows a savings in the time or effort necessary to remaster previously learned material.
7. (p. 210) This technique was demonstrated in an experiment where a Greek passage was read to a child daily when the child was between fifteen months and three years of age. When tested at eight years of age, the child showed about 25 percent savings.
8. (p. 211) When an entire past experience is reconstructed from one small recollection, this is called and reconstruction.
9. (p. 211) It almost always involves partial information, rather than total information.
10. (p. 211) Eidetic imagery occurs when a person has visual images clear enough to be scanned or retained for at least thirty seconds after viewing a picture.
11. (p. 211) Such photographic memories are less frequent among adults than children.
12. (p. 211) They appear to disappear with age because we trade it for memorizing through language.
13. (p. 211) Eidetic memory depends on images projected on a surface in front of a person. A second type of "photographic" memory occurs in people who have very vivid internal images.
14. (p. 212) Such was the interesting case of Mr. S who had a complete photographic memory. Unfortunately, Mr. S remembered so much that he could not separate what was important from what was trivial.
15. (p. 213) In a series of famous early experiments, Ebbinghaus learned long lists of nonsense syllables.
16. (p. 213) By waiting various amounts of time before testing himself, he constructed a curve of forgetting.
17. (p. 213) The curve shows that forgetting is rapid at first and then levels off to a slow decline.

18. (p. 213) Spitzer's studies prove the value of spaced review or periodic studying.
19. (p. 213) Spitzer had students review immediately after studying, then again several days later, and a third time sixty-three days later. These students remembered over 80 percent more than students who did not review what they had learned.
20. (p. 213) There are several steps involved in placing information into permanent memory. Incoming information first enters sensory memory (also called sensory short-term memory, abbreviated STM).
21. (p. 213) This element holds an exact copy of what is seen or heard, but lasts for only one-half second or less. It is a bridge between perception and memory.
22. (p. 213) Selective attention determines what information moves from sensory memory to the second stage.
23. (p. 213) This second storage system is called short-term memory, abbreviated STM, but may also be called working memory because it is the system used when dialing a phone number, remembering a new name, or adding a column of numbers.
24. (p. 214) Short-term memory (STM) is used to hold information for brief periods of time.
25. (p. 214) Once information is removed from STM it is permanently lost.
26. (p. 214) STM is greatly affected by an interruption or interference.
27. (p. 214) Information that is important, useful, meaningful, or novel may be transferred to the third memory system called long-term memory, abbreviated LTM.
28. (p. 214) LTM seems to be based on a separate system in the brain since it permanently records information and has a practically unlimited storage capacity.
29. (p. 215) In studying short-term memory, George Miller found that we can normally retain about seven bits of information.
30. (p. 215) This was demonstrated through his use of the digit span test.
31. (p. 215) Humans can retain more than seven individual bits of information by converting them into chunks of information.
32. (p. 215) Coding information by organizing it into larger chunks is a key to increasing the efficiency of STM.

33. (p. 215) Short-term memory traces appear to undergo very rapid decay or weakening, but can be prolonged by rehearsal, mentally repeating the information.
34. (p. 216) Information in STM stays pretty much in its original form, while long-term memories are repeatedly revised and updated as new information is added.
35. (p. 216) There is a sizable body of evidence indicating that long-term memories are organized. They may be structured in terms of rules, images, categories, meaning, similarity, or simply on a purely personal basis.
36. (p. 217) One view of why forgetting occurs says that neural connections (changes in nerve cells or brain activity) fade or decay over a period of time.
37. (p. 217) This appears to be the case with short-term memory, but this possibility is questionable with regard to long-term memory.
38. (p. 217) There appear to be several additional possibilities that explain LTM forgetting. One of them emphasizes that many memories appear to be available but not accessible, because cues present at the time of learning are no longer present when the time comes to retrieve information.
39. (p. 218) Another possibility is that memories are forgotten because new learning can interfere with previous learning.
40. (p. 218) Evidence for the interference notion of forgetting comes from the experiments showing that more memories are lost during normal waking hours than when sleeping.
41. (p. 218) Evidence supporting this notion also comes from experiments showing that hibernating cockroaches retain information more than cockroaches allowed to engage in normal, waking activities. Both the sleeping college students and the refrigerated cockroaches remembered more because retroactive inhibition was held to a minimum.
42. (p. 218) Retroactive inhibition refers to the tendency for new learning to interfere with old learning.
43. (p. 218) A second basic type of interference is proactive inhibition.
44. (p. 218) This occurs when old learning interferes with new learning.
45. (p. 219) A special form of memory inhibition is suppression, a type of motivated forgetting in which painful, threatening, or embarrassing memories are actively held out of consciousness by forces within one's personality.

46. (p. 219) Repression can be distinguished from Suppression, a conscious attempt to put something out of mind, because the former occurs on an unconscious level.
47. (p. 219) Flashbulb memories describe lasting images that are often frozen in memory at times of personal tragedy, accident, or loss.
48. (p. 219) This may occur because the hormone ACTH, which has been shown to enhance memory formation, is secreted during times of stress.
49. (p. 219) A head injury may cause a "gap" in memories preceding the accident. This is called retrograde amnesia.
50. (p. 219) It can be understood by recognizing that transferring memories from short-term storage to long-term storage takes a certain amount of time. The process is called consolidation.
51. (p. 219) Support for the notion of memory consolidation comes from work showing that a mild electric shock to the brain, known as electroconvulsive shock, can be used to prevent consolidation.
52. (p. 220) Jarvick showed that rats shocked for stepping off a platform would continue to step off if ECS was used to block consolidation immediately after each learning experience.
53. (p. 220) The area of the brain of particular importance to memory is the hippocampus, buried deep within the temporal lobes at each side of the brain.
54. (p. 220) Humans who have had the hippocampus damaged show a striking inability to store new memories, as in the case reported by Brenda Milner.
55. (p. 220) Various drugs can be used to speed up consolidation, although they do not directly increase memory. These drugs include metrazol, strychnine, nicotine, cocaine, and amphetamine.
56. (p. 220) A change in ribonucleic acid (RNA) structure is capable of altering the activity of individual nerve cells in the brain.
57. (p. 220) Some psychologists now believe that memory traces, or engrams, are directly related to changes in RNA, since it is involved in protein production and other cell functions.
58. (p. 220) Support for the importance of RNA in memory comes partially from work with flatworms.
59. (p. 220) It has been shown that planaria first conditioned, then cut in half and allowed to regenerate in either plain water or in a solution containing an enzyme which destroys RNA, do not transfer the memories equally well.

Only those sections allowed to regenerate in planaria were able to transfer learning from their tails to their new heads.

60. (p. 221) The first planaria experiments have been controversial, as have experiments suggesting that habit of repetition is possible by chopping up trained animals and feeding them to untrained animals.
61. (p. 221) These experiments have not always been repeatable and have also been criticized on the grounds that eating a "trained" donor may facilitate learning in the recipient rather than memory.
62. (p. 223) Several suggestions can be made as to how to improve memory. One of these emphasizes the importance of repetition or knowledge of results.
63. (p. 223) Feedback can help you check to see if you are learning and can help identify material that needs extra practice. A prime means of providing feedback is repetition, repeating to yourself what you have learned.
64. (p. 223) One experiment illustrating this point showed that the best memory score was earned by students who spent 80 percent of their time reciting and only 20 percent reading.
65. (p. 223) Numerous studies have shown that memory is greatly improved by repetition, that is, study continued beyond bare mastery.
66. (p. 223) Another suggestion is to boil down the paragraphs to one or two important terms or ideas. Such careful and careful marking of a text makes memorization more manageable.
67. (p. 223) Spaced practice is generally superior to massed practice. By scheduling your time into brief study sessions, you maximize your study skills.
68. (p. 223) Organized class notes can be extremely helpful. In fact, outlining your outlines so that the organization of ideas becomes clearer and simpler can also help.
69. (p. 224) It is generally better to practice whole packages of information rather than smaller parts. Try to study the largest possible amount of information possible at one time.
70. (p. 224) In learning material, it is wise to remember the Serial position effect, the tendency to master material in the order first, last, then middle. Special attention should be given to material in the middle.
71. (p. 224) Remember that spacing after study produces the least interference.
72. (p. 224) A final note is to review shortly before an exam to cut down the time during which you must remember details. However, hold the amount

of new information you try to memorize to a minimum, as it will confuse you and interfere with what you already know.

73. (p. 225) if a memory refers to any kind of memory system or aid.
74. (p. 225) Mnemonic techniques are effective alternatives to rote learning, as demonstrated by many studies. One experiment showed that subjects using mnemonics remembered an average of 72 items from a 100 item list, while those using simple or rote learning remembered an average of 28.
75. (p. 225) There are several basic principles of mnemonics. One is to use visual pictures, since visual memory is usually superior to verbal memory.
76. (p. 225) Another aid is to make things memorable, since this facilitates the transfer of information from short-term to long-term memory.
77. (p. 225) Along with this, try to make information familiar by connecting it with information already stored in LTM.
78. (p. 225) Finally, try to form bizarre, unusual, or surprised mental associations, since connecting two ideas, terms, or images in this way increases the likelihood you will remember them later.
79. (p. 226) There are three mnemonic techniques which can be used to help remember things in order. One of them is to form a sequence. Connecting one item to the next can be quite useful for lists of twenty or more items.
80. (p. 226) Another suggestion is to take a mental walk. By mentally "placing" objects or ideas along a familiar path, you can later retrace your steps mentally to remember the items.
81. (p. 226) A third tool is to use a system. As an example, the first letter or syllable of words or ideas can be formed into another word which can serve as a reminder of the order you wish to remember.

SELF TEST

1. A test involving matching and multiple choice items measures memory using what type of procedure?
- recall
 - ☒ recognition
 - relearning
 - redintegration

2. True-False. The incidence of eidetic imagery is much greater among adults than children since adults have had more opportunity to develop memory skills.
3. When you smell a perfume that reminds you of a person or situation, you are experiencing
- recall.
 - recognition.
 - relearning.
 - ☒ d. redintegration.
4. Indicate (by circling) which of the following are memory functions (or storage areas).
- | | |
|--|--|
| <input checked="" type="radio"/> a. LTM | <input checked="" type="radio"/> e. working memory |
| b. EEG | <input checked="" type="radio"/> f. STM |
| c. ECS | g. LSMFT |
| <input checked="" type="radio"/> d. SSTM | <input checked="" type="radio"/> h. sensory memory |
5. Which of the following would require the use of short-term memory?
- ☒ a. looking up a telephone number and remembering it while you dial
 - remembering your name
 - remembering the letters of the alphabet
 - remembering your social security number
6. Ebbinghaus was the first to
- develop a mnemonic system.
 - study relearning by teaching Greek passages to his child.
 - ☒ c. develop a curve of forgetting.
 - discover flashbulb memories.
7. Humans can normally retain about how many bits of information in STM?
- 2
 - 5
 - ☒ c. 7
 - 9
8. Of the following, which will tend to increase your ability to retain information in memory? (Indicate by circling.)
- ☒ a. coding the information into more easily remembered units
 - using mass versus spaced practice
 - ☒ c. rehearsing the items
 - learning in a novel environment that will heighten your attention
 - using sleep learning devices
 - ☒ f. learning the information in an environment where there is little distraction or interference
 - having ECS performed
 - ☒ h. chunking the information into more easily remembered categories
9. True-False. We forget relatively more information long periods after it has been learned than after short periods.

10. ~~True-False~~. Flashbulb memories are relatively brief memory traces that result from intense stimuli such as the temporary white images you see when a flashbulb is operated.
11. The tendency for new memories to interfere with old memories defines
 - a. retroactive inhibition
 - b. proactive inhibition
 - c. reversal learning
 - d. redintegration
12. ~~True-False~~. Proactive inhibition is the gap in memories which often results from a head injury.
13. When you cannot recall a memory that is unpleasant, you may be experiencing which of the following?
 - a. repression
 - b. depression
 - c. suppression
 - d. impression
14. The process of consolidation refers to
 - a. how information gets into short-term memory.
 - b. how information in long-term memory is recalled.
 - c. how information in short-term memory is recalled.
 - d. how information is transferred from short-term memory to long-term memory.
15. Which of the following can be used to retard or prevent consolidation?
 - a. amphetamines
 - b. ECS
 - c. caffeine
 - d. marijuana
16. ~~True-False~~. The hypothalamus is an area of the brain important in memory functions.
17. The serial position effect indicates that the last material to be learned in a sequence and the most difficult to recall is
 - a. the first part.
 - b. the last part.
 - c. the middle part.
 - d. all are learned equally well.
18. ~~True-False~~. RNA appears to be involved in changes in memory.
19. A good way to keep information in STM is
 - a. recitation.
 - b. rehearsal.
 - c. repression.
 - d. consolidation.

20. Which of the following is a test used to measure STM?
- Ishihari
 - I.Q.
 - ☒ digit-span
 - relearning
21. ☒ True-False. A person suffering from retrograde amnesia can learn new information, but has great difficulty remembering events prior to whatever caused the amnesia.
22. ☒ True-False. The engram refers to a memory trace.

ESSAY QUESTIONS

- Compare and contrast the various procedures used in testing memory.
- Discuss the concept of memory disuse and interference and possible explanations for why we forget. Summarize the procedures and results related to the testing of these hypotheses.
- Define and distinguish retroactive and proactive inhibition. Give examples from your own experience.
- Discuss the factors which your book describes for improving your memory.
- Discuss the basic principles of mnemonics. Indicate how each might be used to remember the information in this chapter.

Thinking, Problem Solving, 11 and Creativity

TERMS AND CONCEPTS

thinking
delayed response problems
trial and error learning
detour problems
insight
American Sign Language (ASL)
synesthesia
muscular imagery
kinesthetic sensations
concepts
 conjunctive
 relational
 disjunctive
denotative meaning
connotative meaning
semantic differential
symbols
phonemes
morphemes
grammar

syntax
transformation rules
semantics
theory of linguistic determinism
rote
fixation
functional fixedness
inductive thinking
deductive thinking
logical thinking
illogical thinking
divergent thinking
convergent thinking
fluency
flexibility
originality
Unusual Uses Test
Consequences Test
Anagrams Test
syllogism
brainstorming

IMPORTANT INDIVIDUALS

Wolfgang Köhler
Beatrice and Allen Gardner
David Premack
Duane Rumbaugh
Penny Patterson
Jerome Bruner
Charles Osgood

Noam Chomsky
James Deese
Benjamin Whorf
Karl Duncker
Donald MacKinnon
Edward de Bono
Jerome Singer

PROGRAMMED REVIEW

1. (p. 229) Thinking refers to many things: daydreaming, fantasy, problem solving, reasoning, free association, and dreaming. In its most basic form, it is the _____ of external stimuli or situations.
2. (p. 229) Animals tested on _____ problems can generally maintain some kind of mental image long enough to make a correct choice.
3. (p. 229) Rats are capable of solving delayed response problems up to _____ after the test light has gone off.
4. (p. 229) Dogs can delay _____, and animals higher on the phylogenetic scale can handle increasingly longer delays.
5. (p. 229) To a degree, animals are thinking when they engage in _____ and _____, which goes beyond simple operant conditioning.
6. (p. 229) Animals which show little _____ in their responses or which have a limited capacity to _____ may be stymied by the simplest trial and error learning task, such as _____ problems.
7. (p. 230) Wolfgang Köhler felt that the problem solving observed in chimpanzees revealed a capacity for _____.
8. (p. 230) Insight is a sudden _____ of the _____ of a problem whereby the solution becomes _____.
9. (p. 230) One of Köhler's brightest chimpanzees named _____ was able to solve problems with such ease that he was given a _____ problem.
10. (p. 230) While Sultan succeeded in solving this problem it may be due to the use of _____ and _____. In other words, he may have been trying alternatives _____ so that all but the correct response was discarded before Sultan acted.
11. (p. 230) Some of the most revealing research on the thinking and problem solving capacities of animals has centered on attempts to teach _____ to chimpanzees.
12. (p. 230) The first major breakthrough in this area came from the work of the Gardners who used a combination of operant conditioning and imitation to teach Washoe to use _____, a set of hand gestures used by the deaf.
13. (p. 231) Washoe now has a vocabulary of about _____ signs and can construct _____ sentences.

14. (p. 231) Some critics are skeptical of Washoe's haphazard arrangement of words. An answer to this criticism has come from the work of Premack, who taught Sarah to use _____ words consisting of _____ arranged on a magnetized board.
15. (p. 231) Sarah has learned to answer questions, to label things same or different, to classify things by color, shape, and size, and to construct _____. One of Sarah's most outstanding achievements is use of sentences involving _____.
16. (p. 231) Lana is another language-using chimp, trained by Duane Rumbaugh. Lana communicates by pressing buttons on a _____ that require her to use proper word order to be understood or rewarded.
17. (p. 231) Other primates have been taught language as well. For example Penny Patterson has taught a young gorilla named Koko to use over _____ signs.
18. (p. 231) Patterson considers conversations held about _____ and _____ a strong indication of Koko's comprehension.
19. (p. 231) This and related research with dolphins shows that animal cognitive abilities go far beyond rote learning. For example, at age four, Koko scored _____ on a human IQ test, which is average normal for a child of the same age.
20. (p. 232) There are many basic units of thought. The internal representations you probably use in problem solving are _____, where you may rely upon your memory of actual physical movements to remember or solve a problem.
21. (p. 232) _____ are another unit. Here you form mental pictures to help in solving a problem.
22. (p. 232) The use of _____ is another unit of thought.
23. (p. 232) The fourth unit is _____, where in order to summarize the outcome of your thinking you have to translate your answers into _____.
24. (p. 233) Mental imagery is certainly important in problem solving. Some people tend to use a predominance of one type of imagery or another; while other people experience a rare form of imagery called _____ in which images cross normal sensory barriers.
25. (p. 233) It is surprising to note that we think with our bodies as well as our heads. Jerome Bruner believes that we often represent things in a kind of _____ created by actions or _____.

26. (p. 233) A great deal of information is contained in _____ sensations (sensations from the muscles and joints). As one talks these sensations help structure the flow of ideas.
27. (p. 233) One of the reasons thinking can be hard work is that it is accompanied by an undercurrent of _____ and activity throughout the body.
28. (p. 233) This has been demonstrated in one classic study where a subject was asked to imagine that he was hitting a nail with a hammer. As he did there was a clearly discernable burst of activity in the muscles of his unmoving _____.
29. (p. 233) Another study employed deaf-mutes asked to multiply and divide numbers in their heads. _____ percent showed increased muscular activity in their hands, while only _____ percent of a group of speaking subjects showed similar increases.
30. (p. 234) A concept is a word or idea that represents a _____ of objects. The use of concepts allow us to function on an _____ level free from the details of a particular object or situation.
31. (p. 234) Several general types of concepts have been identified. A _____ _____ embraces a class of objects that have one or more features in common.
32. (p. 234) _____ concepts classify objects on the basis of their _____ to something else, or by the _____ between features of an object.
33. (p. 234) _____ refer to objects that have at least one of a number of features. They possess an either-or quality.
34. (p. 234) Generally speaking, concepts have two types of meaning. The _____ meaning of a word or concept is its explicit definition. The _____ meaning is its emotional or personal meaning.
35. (p. 235) Osgood has used the _____ to measure connotative meaning. He found that when words or concepts are rated on a series of scales, most of their connotative meaning boils down to the dimensions: _____, _____, and _____.
36. (p. 235) While animals do communicate very specific information, they do not use language productively. Their communication skills do not qualify as true language because they cannot generate new _____.
37. (p. 235) True language must provide _____ which can be used to stand for objects and ideas.
38. (p. 235) These symbols we call words are built out of _____, the basic speech sounds, and _____, speech sounds collected into meaningful units.

39. (p. 235) A second requirement of true language is that it have _____ or a set of rules for the combination of symbols into phrases and sentences.
40. (p. 235) One part of grammar is known as _____, rules pertaining to word order in sentences.
41. (p. 236) Rather than concentrating on the "surface" of language as does traditional grammar, Chomsky has emphasized _____ rules that allow us to actively and creatively generate new sentences.
42. (p. 236) A third requirement of true language is that it be capable of conveying _____.
43. (p. 236) In practice this means that most spoken sentences are short, lasting less than _____.
44. (p. 236) Psychologist James Deese believes this is true because of the limits of _____ memory.
45. (p. 236) Most thought leans heavily on language, because it allows the world to be _____ into symbols that are easily manipulated.
46. (p. 236) Study of the meaning of words and language is called _____.
47. (p. 237) It is somewhat accurate to say that the language a person speaks affects thought. This is the basic notion of Benjamin Whorf, as described in the theory of _____.
48. (p. 238) A number of different approaches to thinking and reasoning in problem solving can be identified. _____ solutions may be achieved by trial and error, or by _____.
49. (p. 238) Rote refers to thinking that proceeds according to a learned set of _____.
50. (p. 238) Many problems are unsolvable by mechanical means or by the use of habitual modes of thought. In this case a higher level of thinking based on _____ is necessary.
51. (p. 239) This is demonstrated in the classic studies of Karl Duncker. He studied the problem solving process of students and discovered two phases. First, the student had to discover the _____ of a correct solution. The second stage was marked by _____ from which a specific solution is selected.
52. (p. 239) A very important barrier to problem solving is _____, the tendency to get hung up on inappropriate solutions or to become blind to other alternatives.
53. (p. 239) A prime example of this is _____, the inability to see new uses for familiar objects, or objects that have been used in a particular way.

54. (p. 239) Creative thinking involves more than mechanical, insightful, or understanding modes of thinking. We must also add _____ thinking (going from specific facts or observations to general principles); _____ thinking (going from general principles to specific situations); _____ thinking (proceeding from given information to new conclusions on the basis of explicit rules); and _____ thinking (intuitive, associative, or personal).
55. (p. 240) Creative thinking involves all of these styles of thought plus _____, _____, and _____.
56. (p. 240) _____ is defined as the total number of suggestions to a problem you can produce.
57. (p. 240) _____ is defined as the number of times you shift from one class of possible uses to another.
58. (p. 240) _____ refers to how novel or unusual your suggestions in solving a problem are.
59. (p. 240) Considering all of these factors, we would be rating your capacity for _____ thinking, the most widely used measure of creativity. It is the reverse of _____ where lines of thought converge on the correct answer.
60. (p. 240) There are several tests of divergent thinking. In the _____ a person is asked to think of as many uses for an object as possible.
61. (p. 240) In the _____ the object is to answer questions phrased in "what-if" form, where the subject tries to list as many reactions as possible.
62. (p. 240) In the _____ subjects are given a word like "creativity" and asked to make as many new words as possible by rearranging the letters.
63. (p. 241) The best summary of the sequence of events in creative thinking proposes five stages. The first step is _____, where the problem must be defined and important dimensions identified.
64. (p. 241) _____ is next, where the persons saturate themselves with as much information pertaining to the problem as possible.
65. (p. 241) The third stage, _____, involves a period during which all attempted solutions will have proven futile, and the person leaves the problem "cooking" in the background.
66. (p. 241) The stage of incubation is often ended by a rapid insight or series of insights which mark the fourth stage referred to as _____.

67. (p. 241) The final step, _____, is to test and critically evaluate the solution obtained during the stage of illumination. If the solution proves faulty, the thinker reverts to the stage of _____.
68. (p. 242) David MacKinnon has discovered several important factors about creative people. First, while most creative people have above average IQ, there was _____ in average IQ between highly creative and less creative people in the same field.
69. (p. 242) Creative people usually have a greater than average range of _____ and _____, and they are more fluent in combining ideas from various sources.
70. (p. 242) The creative person has an _____ to experience.
71. (p. 242) Creative people enjoy _____, ideas, _____ and possibilities. Their work is an end in itself.
72. (p. 242) Highly creative people value _____ and have a preference for _____.
73. (p. 244) There are several factors which can contribute to difficulties in thinking and problem solving. One of these is the limiting effects of a _____.
74. (p. 245) Another major thinking difficulty focuses on the process of _____.
75. (p. 245) This can be demonstrated in simple sequences involving a set of premises (assumptions) and a conclusion in the format known as a _____.
76. (p. 245) A syllogism can be evaluated for the _____ of its reasoning and for the _____ of its conclusion.
77. (p. 245) Another very basic source of thinking errors is _____.
78. (p. 245) Two types are particularly troublesome: _____ - _____ thinking and thinking in terms of _____.
79. (p. 245) Several suggestions can be offered as to how to begin increasing creativity. One of these is to _____ a _____ possibilities. A broad range of knowledge can mean more creative possibilities.
80. (p. 245) A variety of experiments show that people make more original, spontaneous, and imaginative responses when exposed to others (models) doing the same thing, so _____ the _____.
81. (p. 246) Trying to hurry or force a problem solution may simply encourage fixation of a dead end, so always allow time for _____.

82. (p. 246) Creativity requires divergent thinking, so remember to seek _____.
83. (p. 246) Edward de Bono suggests a technique to help with this. He recommends that you _____ look up words in the dictionary and _____ each to the problem.
84. (p. 246) Representing a problem in a variety of ways is often the key to solution. One way to do this is to look for _____.
85. (p. 246) _____ is an alternative approach to enhancing creativity that involves keeping production and criticism of ideas completely separate.
86. (p. 246) As ideas are freely generated an interesting _____ - _____ effect takes place, in which one participant's ideas trigger ideas for others.
87. (p. 246) The four basic rules for successful brainstorming are: (1) _____ of an idea is absolutely barred, (2) _____ or combination with other ideas is encouraged, (3) _____ of ideas is sought, (4) _____, _____, or wild ideas are sought.
88. (p. 247) As an aid to the brainstorming method, a creativity checklist is suggested. The key terms here include:
- | | |
|---|-------------|
| (1) Consider other uses for all elements of the problem | |
| (2) _____ | (6) _____ |
| (3) _____ | (7) _____ |
| (4) _____ | (8) _____ |
| (5) Minify | (9) Combine |
89. (p. 248) Psychologist Jerome Singer has found that most people daydream sometime each day. One study of college students found that most daydreams are about _____ success, _____ and romance, _____ and possessions, _____, or physical attractiveness.
90. (p. 248) In another study, it was found that students attending a lecture spent nearly _____ - _____ of the lecture time daydreaming, most often about _____.
91. (p. 248) Two of the most common daydream "plots" are the _____ and the _____ themes.
92. (p. 248) Singer found three patterns in fantasy. Some people find their daydreams _____. For these individuals their daydreams often make them anxious, as they have difficulty concentrating and their minds wander.
93. (p. 248) A second pattern is represented by the person who has very _____ daydreams filled with unpleasant emotions.
94. (p. 248) The third pattern, enjoyed by the majority of people, involves _____ daydreams used for self-amusement, future planning, problem solving and the like.

95. (p. 248) Daydreams have been called the "nursery of great _____" because they often fill a need for stimulation when a person performs a routine or monotonous task and improve the ability to delay immediate gratification so that future goals can be achieved.
96. (p. 248) Perhaps the greatest value of fantasy is its contribution to _____ to which it is directly linked.

SELF TEST

1. Indicate (by circling) which of the following are difficulties in thinking and problem solving.
 - a. rigid mental set
 - b. overcomprehension
 - c. disjunctive conceptual thinking
 - d. oversimplification
 - e. problems with logic
 - f. divergent thinking
2. True-False. One part of grammar, known as semantics, refers to rules pertaining to word order in sentences.
3. Of the following, which are problems that can be used to demonstrate representational thought in animals?
 - a. delayed response
 - b. response deprivation
 - c. trial and error
 - d. anagrams test
4. The ability to experience a given sensation in a totally different physical dimension is called
 - a. kinesthesia.
 - b. synesthesia.
 - c. inesthesia.
 - d. euthanasia.
5. Indicate (by circling) which of the following are suggestions for enhancing creativity.
 - a. verify the validity of your logic and the truth of your conclusions
 - b. create the right atmosphere
 - c. develop a knowledge base
 - d. be a convergent thinker
 - e. allow time for incubation
 - f. seek varied input
 - g. develop a narrow, but consistent chain of thoughts
 - h. look for analogies
6. True-False. We often think with our bodies as well as our heads; that is, we often represent things in a kind of muscular imagery created by implicit actions.

7. True-False. In general all creative individuals have above average IQ, but all above average IQ individuals are not necessarily creative.
8. Which type of concept embraces a class of objects that have one or more features in common?
 - a. conjunctive
 - b. relational
 - c. disjunctive
 - d. conditional
9. Indicate (by circling) which of the following are basic rules for successful brainstorming.
 - a. cross-stimulation through criticism is necessary
 - b. unusual, remote, or wild ideas are sought
 - c. modification or combination with other ideas is encouraged
 - d. quantity of ideas is sought
 - e. fixation through concentration is helpful
 - f. oversimplification is mandatory
 - g. all-or-nothing statements are encouraged
 - h. criticism of an idea is barred
10. The explicit definition of a word or concept is its
 - a. denotative meaning.
 - b. connotative meaning.
 - c. semantic differential.
 - d. derogatory meaning.
11. Of the following, which is *not* a requirement that defines true language?
 - a. meaning
 - b. symbols
 - c. rules
 - d. communication
12. The notion that language is not only an instrument for reproducing ideas, but also a shaper of ideas was proposed in the theory of
 - a. grammatic suphism.
 - b. linguistic determinism.
 - c. Brunerian hypothesis.
 - d. divergent composition.
13. The inability to see new uses for familiar objects, or objects that have been used in a particular way is called
 - a. functional fixedness.
 - b. functional inutility.
 - c. compromised functionality.
 - d. inductive thinking.
14. True-False. Language acquisition research with primates and dolphins has shown that animal cognitive abilities can go far beyond rote learning.

15. Thinking that is intuitive, associative, or personal is referred to as
a. deductive.
b. inductive.
c. logical.
d. illogical.
16. Of the following, which is *not* a test of divergent thinking?
a. Anagrams Test
b. Unusual Uses Test
c. Consequences Test
d. Semantic Differential Test
17. Arrange (by rank ordering the letters) the sequence usually followed in creative thinking.
- | | |
|-----------------|----------|
| a. verification | 1. _____ |
| b. orientation | 2. _____ |
| c. illumination | 3. _____ |
| d. preparation | 4. _____ |
| e. incubation | 5. _____ |
18. Of the following, which is *not* an internal representation you use in thinking?
a. language
b. muscular responses
c. images
d. photographs
19. The basic speech sounds built into words are called
a. symbols.
b. phonemes.
c. grammar.
d. morphemes.
20. Speech sounds collected into meaningful units are called
a. symbols.
b. phonemes.
c. grammar.
d. morphemes.
21. True-False. One of the reasons thinking can be tiring is because it is accompanied by an undercurrent of muscular tension and implicit muscular activity.
22. True-False. Conjunctive concepts refer to objects that have at least one of a number of features.
23. Of the following, which is *not* a measure of creative thinking?
a. fluency
b. flexibility
c. fixation
d. originality

24. The format for presenting simple sequences of logical thought involving premises and a conclusion is known as a
 - a. syntax.
 - b. semantic.
 - c. syllogism.
 - d. anagram.
25. True-False. The point at which a useful idea or insight becomes set in one's mind is known as fixation.

ESSAY QUESTIONS

1. Define thinking and discuss the differences in how man and other animals differ in the use of this process.
2. What is creative thinking? Discuss the ways it has been measured and defined.
3. Discuss the theory of linguistic determinism as it relates to our culture and those of other nations.
4. What are some common types, themes, advantages, and disadvantages of daydreams?

Motivation 12

TERMS AND CONCEPTS

motivation
need
drive
goal
incentive value
primary motives
stimulus motives
secondary motives
homeostasis
hypoglycemia
taste aversion
bait shyness
specific hungers
episodic drive

estrus
estrogen
arousal
arousal theory
Sensation-Seeking Scale (SSS)
Yerkes-Dodson Law
need for achievement (nAch)
behavioral dieting
intrinsic motivation
extrinsic motivation
job enrichment
biorhythm theory
circadian rhythms

IMPORTANT INDIVIDUALS

Cannon and Washburn
Stanley Schachter
Marvin Zuckerman
David McClelland

Matina Horner
John Lavach
Hope Lanier
Abraham Maslow

PROGRAMMED REVIEW

1. (p. 254) _____ refers to the dynamics of behavior, the process of initiating, sustaining, and directing activities of the organism.

2. (p. 254) In developing a model of motivation, we may begin with how many motivated activities begin, with a _____.
3. (p. 254) Needs cause a psychological state or feeling called a _____ to develop.
4. (p. 254) The drive activates a _____ (or a series of actions) designed to attain a _____ that will relieve the need.
5. (p. 254) Relieving the need temporarily ends the motivational chain of events. This may be referred to as _____.
6. (p. 255) Motivated behavior can be energized by _____ as well as by the "push" of internal needs.
7. (p. 255) The "pull" exerted by a goal is called its _____.
8. (p. 255) In most instances it is helpful to recognize that actions are energized by a combination of internal needs and external incentives, and that a strong state of _____ may make a less attractive _____ into a desirable goal.
9. (p. 256) For the purpose of study, motives can be divided into three major categories. The first, referred to as _____, are based on biological needs which must be met for survival.
10. (p. 256) The most important primary motives are _____, _____, _____, and needs for _____, _____, _____ of _____, and regulation of _____.
11. (p. 256) _____ are related to a second category of needs. Like the primary motives, they appear to be _____, but they are not necessary for mere _____ of the organism.
12. (p. 256) Their purpose seems to be to provide useful information about the environment and stimulation to the nervous system. The stimulus motives include: _____, _____, _____, _____, and _____.
13. (p. 256) The third category, _____ or _____ motives, accounts for the great diversity of human activities.
14. (p. 256) The most important secondary motives are related to acquired needs for _____, _____, _____, _____, and _____.
15. (p. 256) The important motives of _____ and _____ also appear to be subject to learning.
16. (p. 256) To understand motivation, one must understand the term _____ meaning "standing steady" or "steady state."

17. (p. 256) The body constantly attempts to maintain itself at ideal levels. Homeostatic mechanisms are similar in operation to a _____ set at a particular temperature.
18. (p. 257) When you feel hungry you probably associate a desire for food with sensations from your stomach. This idea led _____ and _____ to investigate whether contractions of an empty stomach cause hunger.
19. (p. 257) Washburn trained himself to swallow a toy balloon which could be inflated through an attached tube so that stomach contractions could be recorded. They found that when Washburn's stomach contracted, he felt _____.
20. (p. 257) While it is true that eating is limited when the stomach is _____ (full), it can be shown conclusively that the stomach is not essential for experiencing hunger.
21. (p. 257) For one thing, cutting the _____ from the stomach (so that stomach sensations can no longer be felt) does not abolish hunger.
22. (p. 257) Also, people who have had their stomachs removed surgically continue to feel hungry and eat regularly. This leads us to believe that some _____ factor must be the cause of hunger.
23. (p. 257) One important factor involved in this now appears to be the level of _____ in the blood. This has been demonstrated by transferring blood from a starving dog to one that was recently fed. In such cases the second dog will begin eating.
24. (p. 257) We also know from human studies that if insulin is injected in a human it produces _____ (low blood sugar) and stimulates feelings of hunger and stomach contractions.
25. (p. 257) It now appears that the _____ may be responsible for hunger since it responds to a lack of bodily "fuel" by sending nerve impulses to the brain that trigger eating.
26. (p. 258) Eating is primarily under the control of the _____, a small structure in the center of the brain.
27. (p. 258) Cells in the hypothalamus are sensitive to levels of sugar in the blood. One area, the _____, has been identified as the area that initiates eating.
28. (p. 258) If this area is _____, even a well-fed animal will immediately begin eating. If it is _____, the animal refuses to eat and will die if not force-fed.
29. (p. 258) A second area of the hypothalamus seems to operate as a _____ and serves to stop eating.

30. (p. 258) If the satiety center is damaged, animals will _____ to the point of total _____.
31. (p. 258) There is more to hunger than "start" and "stop" systems in the brain. Recent evidence suggests that _____ stored in the body also influences hunger.
32. (p. 258) The body acts as if there is a _____ for the _____ of body fat that is maintained. When an overweight person loses weight, the body goes below this point and the person feels hungry all the time.
33. (p. 258) People do appear to have different set points, partially _____ and partially determined by _____ feeding patterns.
34. (p. 258) If a weight problem begins in childhood, the person will, as an adult, have _____ fat cells and _____ fat cells in the body.
35. (p. 258) Obese adults differ psychologically from their slimmer neighbors. They often confuse _____ with other _____.
36. (p. 258) Also, as demonstrated by Stanley Schachter, the overweight are more sensitive than normal to _____ cues for eating, such as the time on a clock.
37. (p. 259) Obesity is also greatly affected by the _____ of food or the _____ of _____ necessary to obtain it.
38. (p. 259) For example, in one study it was found that if shelling nuts was necessary before they could be eaten, only _____ percent of obese subjects ate them. But when the nuts were pre-shelled, almost _____ percent of the obese subjects ate them.
39. (p. 259) As the research on overeating suggests, hunger is affected by a number of factors in addition to actual bodily need for food. One of these is _____. Learning to think of some foods as desirable and others as revolting obviously has much to do with our eating habits.
40. (p. 260) Another important factor is _____. It has been demonstrated that the more hungry a person is, the more "pleasant" a sweet tasting food is judged to be.
41. (p. 260) If a food causes sickness or if it simply precedes sickness caused by something else, we quickly learn to avoid such foods. This process is referred to as _____ and appears to be related to a _____ to associate an upset stomach with food eaten within the previous few hours.
42. (p. 260) This phenomenon is also seen in animals. In a pioneering experiment, coyotes given lamb treated with lithium chloride became nauseated and

vomitted. After one or two such treatments, they developed _____, a lasting distaste for the tainted food.

43. (p. 260) If animals are made ill by being deprived of vitamin B, they develop a marked preference for foods to which this essential vitamin has been added. This is an example of how animals (and people) are able to develop _____ for nutritional substances lacking in their diets.
44. (p. 260) In one classic human experiment on _____ infants selected a balanced diet, and their health and growth were normal.
45. (p. 260) One child suffering from rickets voluntarily drank large amounts of _____ and cured himself of his nutritional disease.
46. (p. 260) Similarly, malnourished children have been known to eat plaster from walls to obtain the _____ it contains.
47. (p. 260) While there is some evidence of specific hungers in humans, even by early childhood, _____ food preferences tend to override specific hungers.
48. (p. 261) Like hunger, thirst appears to be controlled from the _____, where separate thirst and thirst satiety centers are found.
49. (p. 261) Just like there are specific hungers for food, there is also something like specific thirst. Before the body can retain water, minerals lost through perspiration must be replaced. Thus, when a person is really thirsty, a slightly _____ liquid may be more satisfying than plain water.
50. (p. 261) Drives like hunger, thirst, and sleepiness come and go in a fairly consistent cycle each day. Pain, by contrast, is an _____ drive since it is aroused only when damage to the tissues of the body takes place.
51. (p. 261) The desire to end pain seems so basic that it may come as a surprise that avoiding pain appears to be partially _____. This was demonstrated in an experiment in which dogs raised normally yelped and withdrew from pain, while dogs reared in isolation acted like they either _____ pain or did not _____ to do about it.
52. (p. 261) Sexual motivation is quite unusual by comparison to other biological motives. In lower animals the sex drive is directly related to the action of _____ in the body.
53. (p. 261) Females of the lower species are only interested in mating when their fertility cycle is in the stage of _____ or heat, which is caused by secretion of the hormone _____ into the bloodstream.

54. (p. 261) Hormones are important in the male animal as well, and in most lower animals _____ will abolish the sex drive.
55. (p. 262) Unlike drives for food, water, air, etc., the sex drive shows no clear relationship to deprivation. It is therefore considered to be _____.
56. (p. 262) The sex drive is also unusual in that its _____ is as actively sought as its _____.
57. (p. 262) Stimulus needs encompass drives for exploration, manipulation, and curiosity. Curiosity drive was demonstrated in experiments showing that monkeys would learn tasks for stimulation when no other _____ was offered.
58. (p. 263) Closely related to the curiosity drive are needs for sensory stimulation. For example when babies are shown patterns of varying complexity, they spend more time looking at _____ patterns.
59. (p. 263) _____ refers to variations in activation of the body and nervous system. It is zero at death, low during sleep, moderate during normal daily activities, and high at times of excitement, emotion, or panic.
60. (p. 263) The position known as the _____ of motivation assumes that there is an ideal level of arousal for various activities and that individuals behave in ways that keep arousal near this ideal level.
61. (p. 264) According to arousal theory, _____ and the drive to seek _____ can be interpreted as an attempt to raise the level of arousal when it is too low.
62. (p. 264) Marvin Zuckerman has devised a test called the _____ - _____ (SSS) to measure individual differences in preferred arousal levels.
63. (p. 264) People who score high on the SSS tend to be _____, _____, and to value change. They also report more _____ partners, are more likely to _____, and prefer spicy, sour, and crunchy foods over blander foods.
64. (p. 264) Low sensation seekers are _____, _____, and like the company of others.
65. (p. 264) Performance of a task is usually best when arousal is _____. If a task is relatively simple, the optimal level of arousal will be high. When a task is difficult or complicated, the best performance occurs at low levels of arousal. This relationship is called the _____ - _____, and is symbolized as an _____.
66. (p. 266) The need for achievement can be defined as a desire to meet some _____ of _____. The person with high needs

for achievement strives to do well in any situation in which evaluation takes place.

67. (p. 267) To measure nAch, David McClelland used a series of pictures showing people in various situations related to work and school. People were asked to make up a story about each of the pictures. Using this simple measure, he found that scoring achievement-oriented _____ predicted the behavior of high and low achievers in many situations.
68. (p. 267) Those high in nAch are _____ risk-takers. When faced with a problem or challenge, persons high in nAch avoid goals that are too easy because they offer no sense of satisfaction. They also avoid long shots because there is no hope of success, or if success occurs it will be due to luck rather than skill.
69. (p. 267) The formula for developing achievement seems to be a fairly _____ parent who encourages _____ - _____ and rewards _____ behavior.
70. (p. 267) Need achievement studies involving women tend to give less consistent results than those using males. Also, some researchers like Matina Horner have uncovered evidence of a _____ of _____ in women subjects.
71. (p. 268) In one of her experiments, _____ percent of female undergraduates given the sentence, "After first term finals, Anne finds herself at the top of her medical school class," expanded this with negative or derogatory statements.
72. (p. 268) Only _____ percent of the men tested gave similar responses. Also, when the name Anne was changed to John, women rarely made negative comments.
73. (p. 268) These results are striking when combined with those of Lavach and Lanier who detected the motive to avoid success in _____ through _____ grade high-achieving girls.
74. (p. 268) Abraham Maslow has proposed a _____ or ordering of needs in his attempt to place human motivation in perspective.
75. (p. 268) The bottom or first of the needs are _____. They are necessary for survival and tend to be dominant over the higher needs.
76. (p. 268) The higher needs are expressed only when the prepotent physiological needs are satisfied. This is true of the next level of needs, those for _____ and _____.
77. (p. 268) Maslow described these first two levels of need as _____ needs, with the next broad level known as _____ needs. These include needs for _____ and _____ (family, friendship, caring),

needs for _____ and _____ - _____ (recognition and self-respect) and the need for _____ - _____.

78. (p. 268) Maslow called the less powerful but humanly important actualization motives, _____ - _____ and estimated that only about one person in _____ is primarily motivated by self-actualization needs.
79. (p. 271) Obesity is a genuine health and behavioral problem. If you are only ten percent overweight, this is associated with a _____ percent greater risk of dying sooner than people of normal weight.
80. (p. 271) What is really needed to control weight is a complete overhaul of _____ and control of _____.
81. (p. 271) This approach has been called _____ and involves a number of techniques and suggestions. The first of these is to have a physical check-up since about _____ percent of all weight problems are physical.
82. (p. 271) Keeping a diet _____ can be useful as a means of learning your eating habits. Along with this, count _____.
83. (p. 271) Develop techniques to control the act of eating by taking smaller _____, carrying only what you plan to eat to the table, putting all food away before leaving the kitchen, eating slowly, leaving food on your plate, and avoid eating _____.
84. (p. 271) Learn to weaken your personal eating cues by _____ when and where you do the most eating. Require yourself to _____ what you are doing in order to eat and be aware of the "_____ - _____ syndrome."
85. (p. 271) Avoid snacks by fixing only a single portion using low calorie foods. _____ the impulse to eat using a timer or by filling up on raw carrots, bouillon, water, coffee, or tea.
86. (p. 271) Exercise burns calories. Contrary to popular opinion, regular exercise does not _____ appetite, and may _____ it.
87. (p. 272) Get yourself committed to weight loss by involving as many _____ in your program as you can.
88. (p. 272) Make a list of _____ you will receive if you change your eating habits and _____ that will occur if you don't.
89. (p. 272) _____ your progress daily. Record your weight, the number of calories eaten, and whether you met your daily goal.
90. (p. 272) _____ occurs when there is no obvious external reward or ulterior purpose behind your actions, while _____

_____ stems from obvious external factors like pay, grades, rewards, obligations, or approval.

91. (p. 273) Research by Greene and Lepper demonstrates that excessive rewards can undermine spontaneous interest. Children lavishly rewarded for drawing showed _____ interest on subsequent occasions when allowed to draw spontaneously.
92. (p. 273) They summarized their findings by saying that _____ rewards can help focus attention on an activity so that real interest can develop, but should be as small as possible, used only when absolutely necessary, and faded out as soon as possible.
93. (p. 273) An alternative attempt to put intrinsic motivation back into business and industrial work is a strategy known as _____. It usually involves removing some of the controls and restrictions on employees, giving them greater responsibility, freedom, choice, and authority.
94. (p. 274) _____ states that we are all subject to three separate cycles: a physical cycle lasting _____ days, an emotional or sensitivity cycle of _____ days, and a 33-day intellectual cycle.
95. (p. 274) According to the theory, by plotting "good" or "bad" days in terms of positive and negative phases, it is possible to predict daily success or failure. However, studies on occupational accidents, aviation accidents, etc., have found absolutely no _____ between biorhythm and performance.
96. (p. 274) There are, however, definite 24-hour cycles of bodily functions regulated by internal "biological clocks." These daily cycles are called _____.
97. (p. 275) Almost a hundred rhythms have been studied. The most important changes are in body _____, blood _____, urine _____, and amino-acid level, and the activity of the _____ and _____.
98. (p. 275) There are two major ways to make use of an awareness of circadian rhythms. The first is to determine your own highs and lows and schedule your tasks accordingly. The second application relates to "time-zone fatigue" or "_____."
99. (p. 275) The temporary disruption of body rhythms can lead to frequent _____ or poorer _____.
100. (p. 275) It is wise to adapt yourself to a new time schedule before traveling since studies show that most people take over _____ to establish a new circadian rhythm.

SELF TEST

1. Need causes a psychological state or feeling to develop referred to as a
 - a. response.
 - b. goal.
 - c. drive.
 - d. motive.
2. True-False. Biorhythm theory predicts that changing time zones while traveling will increase performance due to novelty effects.
3. Motivated behavior can be energized by external stimuli as well as by the push of internal needs. The "pull" exerted by a goal is called its
 - a. drive reduction.
 - b. goal attainment.
 - c. incentive value.
 - d. primary motivation.
4. Indicate (by circling) which of the following are behavioral dieting techniques.
 - a. observe your eating habits and keep a diet diary
 - b. don't count calories, focus on the amount of food only
 - c. weaken personal eating cues
 - d. eat snacks frequently rather than preparing long meals
 - e. involve other people in your program
 - f. chart your progress daily
 - g. make a list of rewards you will receive for change
 - h. avoid exercise—it increases appetite
5. Motives based on biological needs which must be met for survival are called
 - a. primary.
 - b. stimulus.
 - c. secondary.
 - d. learned.
6. Motives which provide useful information about the environment and stimulation to the nervous system are called
 - a. primary.
 - b. stimulus.
 - c. secondary.
 - d. learned.
7. Within the body there are ideal levels for body temperature, concentration of various chemicals in the blood, etc. When the body deviates from these ideal levels, automatic reactions restore equilibrium. This process is known as
 - a. Yerkes-Dodson Law.
 - b. homeostasis.
 - c. thermostasis.
 - d. biological calibration.
8. True-False. Stomach contractions are the main source of food regulation and control of hunger.

9. Maslow's hierarchy of needs places the order of needs as
 - a. basic, meta, growth.
 - b. meta, basic, growth.
 - c. growth, basic, meta.
 - d. basic, growth, meta.
10. True-False. Overeating in humans is frequently due to damage to the hypothalamus.
11. The drive which is nonhomeostatic in nature is
 - a. hunger.
 - b. thirst.
 - c. sex.
 - d. oxygen intake.
12. Animals may develop a (an) _____ for foods containing a substance omitted from their diets.
 - a. taste aversion
 - b. episodic drive
 - c. specific hunger
 - d. primary drive
13. The development of job enrichment techniques involves increasing
 - a. primary motives.
 - b. extrinsic motivation.
 - c. stimulus motives.
 - d. intrinsic motivation.
14. The Yerkes-Dodson Law relates _____ to _____.
 - a. task difficulty, arousal level
 - b. task difficulty, need achievement
 - c. need for prestige, need achievement
 - d. level of deprivation, level of drive
15. People with high need for achievement are generally _____ risk-takers.
 - a. low
 - b. moderate
 - c. high
 - d. excessive
16. True-False. Many of the functions of the body are regulated by internal clocks that control a rhythmic cycle of circadian rhythms every 24 hours.
17. The development of need for achievement seems to be most directly determined by
 - a. social class.
 - b. religious affiliation.
 - c. ethnic background.
 - d. parental attitudes.

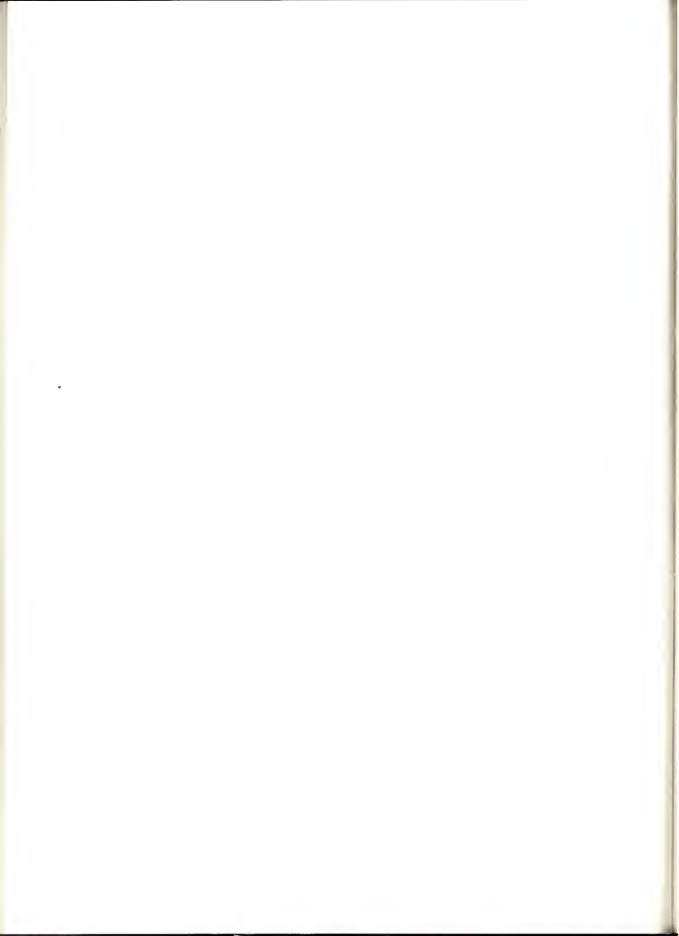
18. Zuckerman developed which of the following to measure differences in preferred stimulus arousal level?
 - a. SSS
 - b. SST
 - c. Yerkes-Dodson Law
 - d. nAch
19. True-False. Research with children has demonstrated that excessive rewards can undermine spontaneous interest in an activity.
20. Of the following, which are secondary motives? (Indicate by circling.)

| | |
|-------------------------|--------------------|
| a. need for air | e. need for food |
| b. need for affiliation | f. aggression |
| c. need for activity | g. need for sleep |
| d. fear | h. need to explore |
21. Food and water intake regulation are primarily controlled by
 - a. the hypothalamus.
 - b. glands in the mouth that detect dryness.
 - c. stomach contractions.
 - d. blood content.
22. True-False. The drive to initiate drinking and the desire to stop drinking are regulated by separate centers of the brain.
23. True-False. Avoiding pain is an entirely unlearned motive basic to human survival.
24. According to the Yerkes-Dodson Law, when a task is relatively simple, the optimal level of arousal will be
 - a. low.
 - b. moderate.
 - c. high.
 - d. unimportant.
25. True-False. Biological needs tend to be prepotent over psychological motives or needs.
26. Circadian rhythms refer to
 - a. the cycles of our bodies' internal clocks.
 - b. the body's everchanging levels of blood sugar.
 - c. the female sexual cycle.
 - d. the need-drive-response-goal attainment cycle.

ESSAY QUESTIONS

1. Discuss the important factors involved in hunger and food intake regulation. Describe the research which has illuminated these factors.

2. What is the need for achievement? How has it been defined and measured? What are some of the characteristics of those with high nAch? How does high nAch seem to develop?
3. Describe the Yerkes-Dodson Law and apply it to some behavioral situation.
4. What is behavioral dieting? What are some of the techniques and suggestions associated with it?



Emotion 13

TERMS AND CONCEPTS

voodoo deaths
hypothetical constructs
James-Lange theory
Cannon-Bard theory
cognitive theory
autonomic nervous system (ANS)
sympathetic branch

parasympathetic branch
polygraph (lie detector)
voice stress analyzer
kinesics
learned helplessness
thanatologist
pupillometrics
total evaluation technique (TET)

IMPORTANT INDIVIDUALS

Walter Cannon
William James
Carl Lange
Phillip Bard
Stanley Schachter
Stuart Valins
George Engel
John Watson

Charles Darwin
Richard Lazarus
Joseph Spiesman
Irving Janis
Martin Seligman
Elisabeth Kübler-Ross
Aaron Beck
Eckhard Hess

PROGRAMMED REVIEW

1. (p. 277) Voodoo deaths can partially be explained by the victim's strong belief in the power of the curse. Walter Cannon believes that the real cause lies in changes that occur in the body which accompany strong _____.

2. (p. 277) More recent research indicates that such deaths are more likely the result of the body's _____ to strong emotion, rather than fear itself.
3. (p. 278) It is now believed that the cursed person's emotional response is so intense that the _____ overreacts and eventually slows the heart to a stop.
4. (p. 278) Emotions are _____, meaning that they must be inferred from the actions and reactions of others rather than being directly observable.
5. (p. 278) One component of any emotional experience is one's _____. These can be classified in terms of _____, _____ or _____, and _____.
6. (p. 279) A second component of emotional experience is _____, which are particularly important for the study of emotion in animals and the communication of emotion from one person to another.
7. (p. 279) The foundation of most emotions is _____ which take place in one's body during fear, anger, joy, etc. These constitute the third component of emotion.
8. (p. 279) These changes include alterations in _____, _____, and other visceral responses.
9. (p. 279) Most of these reactions are caused by release of _____ (a general body stimulant) into the bloodstream, and by actions of the nervous system.
10. (p. 279) The fourth component basic to any emotional experience is the _____ one places on it, since physiological changes during different emotions show only minor differences.
11. (p. 280) There are at least four theories which have been used to explain emotions. The _____ theory is much the reverse of the common sense theory of emotion. It postulates that bodily changes precede emotion and only later are we aware of the emotional experience.
12. (p. 280) Another theory which opposes that of James and Lange proposes that emotional feelings and bodily arousal occur at the same time. This is the _____ theory.
13. (p. 280) A fourth theory of emotion has been proposed by _____. The _____ of emotion stresses that emotion is a combination of physical arousal and the label that is applied to that arousal.
14. (p. 281) Schachter and Singer conducted a series of experiments using adrenalin to test their hypothesis. They found that when subjects were _____

_____ as to the effects of the drug, the emotional state of an accomplice did not affect the subject's emotional state.

15. (p. 281) In the same experiments, subjects who were _____ or _____ as to the effects of the drug were highly influenced by the "anger" and "happiness" conditions of the accomplice.
16. (p. 282) Valins has added an interesting refinement to Schachter's theory of cognitive labelling. According to Valins, perception of emotion in any situation depends upon what you _____ your feelings of physical arousal to.
17. (p. 282) To demonstrate attribution, Valins showed male students a series of slides of nude females. Some slides were paired with an amplified artificial heartbeat the students believed to be their own. When later asked to rate which females they found most attractive, they consistently chose the ones associated with the _____.
18. (p. 282) Another experiment by Dienstbier and Muntter further illustrates attribution. During an important and extremely difficult exam, students told to expect reactions of fear from a placebo pill were _____ likely to cheat because they blamed the butterflies in their stomachs and their pounding hearts on the pill. As a result they were less inhibited.
19. (p. 282) Attribution theory predicts that adding fear, anger, frustration, or rejection to a relationship tends to _____ a couple's feelings for each other.
20. (p. 283) Unpleasant emotions produce especially consistent reactions. The consistency of these reactions is tied to the fact that they are generated by the _____ (ANS).
21. (p. 283) There are two divisions to the ANS, the _____ branch and the _____ branch.
22. (p. 283) The _____ branch prepares the body for _____; for "_____ or _____."
23. (p. 283) The actions of the _____ division generally _____ emotional arousal. This system also helps build up and conserve _____.
24. (p. 283) The parasympathetic system responds much more _____ than the sympathetic. This is why emotions do not subside until _____ or _____ minutes after the threat has passed.
25. (p. 283) The parasympathetic system may overreact during intense fear and in rare cases causes death. This has been noted in voodoo curses and under the pressures of combat during war. Psychiatrist George Engel has studied many cases where direct effects of _____ have caused heart attack and collapse.

38. (p. 286) Bridges observed a large number of babies and found that all of the basic human emotions (both learned and unlearned) appear before age _____.
39. (p. 286) Bridges found that there is a consistent order in which emotions appear, and that the first basic split in development is between _____ and _____ emotions.
40. (p. 286) This conclusion is supported by Konner's investigation of the !Kung of Botswana. Although raised differently, their rate of emotional development is the _____ as our own.
41. (p. 287) _____ believed that emotional expressions were a carryover from more primitive and animal-like stages of evolution retained because communicating one's feelings to others is an aid to survival.
42. (p. 288) The most basic expressions do appear to be fairly universal. Children born deaf and blind use the same facial gestures as others to display _____, _____, _____, etc.
43. (p. 288) It is interesting to note that _____ is the most universal and easily recognizable facial expression of emotion.
44. (p. 288) The study of communication through body movement is called _____.
45. (p. 288) While popular books on body language tend to list particular meanings for various gestures, researchers in the field emphasize that gestures are rarely this fixed in meaning. Instead an overall _____ is communicated.
46. (p. 288) Facial expressions convey the three dimensions of _____ - _____, _____ - _____, and _____.
47. (p. 288) Other emotional qualities are transmitted with the body, the most general being _____ or _____, and _____ or _____.
48. (p. 289) According to Richard Lazarus, there are two important steps in the process of coping with a threatening situation. The first is _____, in which you decide if a situation is threatening or not. Then you make a _____ during which you choose a means of meeting the threat.
49. (p. 289) The emotional effects of appraisal have been demonstrated through the experiment using a graphic film called _____. The film shows a painful operation being performed on the penises of adolescent boys of a primitive Australian tribe.
50. (p. 289) Viewers watched the film under one of _____ different versions, ranging from no sound track to an emphasis on the pain, etc.

51. (p. 290) Recordings of heart rate and GSR showed that the film _____ aspects of the operation produced an _____ in emotion over that caused by the silent film.
52. (p. 290) The intellectual and denial sound tracks _____ emotion.
53. (p. 290) The key to effectively appraising a threatening situation seems to be to achieve a _____ amount of fear. This has been demonstrated by studies on the adjustment of individuals who must undergo major surgery.
54. (p. 290) Janis found that _____ levels of fear were associated with the best adjustment to the pain, helplessness, and vulnerability felt after the operations.
55. (p. 290) Bruno Bettelheim has described a reaction called "give-up-itis" which he observed among Nazi concentration camp prisoners who developed a "zombie-like" detachment from their situations. Recent attempts to understand such events have focused on the concept of _____.
56. (p. 290) Learned helplessness has been demonstrated in the laboratory with animals tested in a shuttlebox. Normally, if dogs are given a warning signal before an electric shock occurs, they will learn to avoid the shocking by leaping a barrier to the safe side of the shuttlebox. However, if dogs were first given painful _____ shocks, they did not learn to avoid shock in the shuttlebox. They helplessly resigned themselves to their fate.
57. (p. 290) Seligman's work with learned helplessness can be related to the human condition and may be useful in understanding _____, one of the most widespread emotional problems in the U.S. today.
58. (p. 291) Perhaps programs such as the _____ might help immunize people against helplessness by giving them experience at mastering seemingly impossible challenges.
59. (p. 293) In a public opinion poll of 1,500 adults, only about _____ percent showed evidence of directly fearing their own deaths.
60. (p. 293) Fears that exist apparently change with age. Younger individuals fear the _____ of death, whereas older people fear the _____ of death.
61. (p. 293) Another survey showed that less than _____ of the respondents grew up in families in which death was openly talked about.
62. (p. 293) A more direct indication of emotional responses to death comes from the work of Kübler-Ross, a _____ (one who studies death) who has spent hundreds of hours at the bedsides of the terminally ill.

63. (p. 293) She has found that the dying person tends to go through a series of five basic emotional stages in order to prepare for death. These include: _____ and _____, _____, _____, _____, and finally _____.
64. (p. 294) Recent studies show that during the school year, up to _____ percent of the students enrolled at American colleges suffer some of the symptoms of depression.
65. (p. 294) At any given time, roughly _____ of the student population is involved.
66. (p. 294) A variety of problems seem to be associated with this. One is that _____ associated with the increased difficulty of college work and pressures to make a _____ often leaves students feeling like they are missing out on fun or that all their hard work is meaningless.
67. (p. 294) A second factor is the _____ and _____ common when students leave their support groups behind.
68. (p. 294) Problems with _____ and _____ frequently trigger depression.
69. (p. 294) A fourth common cause of college depression is break up of an _____.
70. (p. 295) Aaron Beck points out five monitors of depression. The first is that you have a consistently _____ opinion of yourself.
71. (p. 295) A second is that you engage in frequent _____ - _____ and _____.
72. (p. 295) Also, you place _____ interpretations on events that usually wouldn't bother you.
73. (p. 295) A fourth point is that the _____ looks bleak and negative.
74. (p. 295) Finally, you feel that your responsibilities are _____.
75. (p. 295) As suggestions for dealing with "college blues," you can start by making a _____ . Keeping busy often helps.
76. (p. 295) Also, try writing down self-critical or negative thoughts, especially those that immediately precede feelings of sadness. Then write a _____ answer to each.
77. (p. 295) The National Association for Mental Health lists ten "danger signals" which help distinguish normal from severe depression. The first of these is a general and lasting feeling of _____ and _____.

78. (p. 295) Inability to _____, making reading, writing, and conversation difficult.
79. (p. 295) Changes in physical activity like _____, _____, and _____ or frequent physical complaints with no evidence of physical _____.
80. (p. 295) Loss of _____, which brings on continual questioning of personal worth.
81. (p. 295) _____ from others due to immense fear of rejection.
82. (p. 295) Threats or attempts to commit _____, viewed as a belief that life is worthless.
83. (p. 295) _____ to words and actions of others and general _____.
84. (p. 295) Misdirected _____ and difficulty in handling most feelings.
85. (p. 295) Feelings of _____ in many situations.
86. (p. 295) Extreme _____ on others.
87. (p. 296) To study emotion registered by the eyes, Eckhard Hess uses a technique called _____, which involves filming the eyes as they respond to different visual stimuli, then projecting the film on a screen to measure changes in the _____ of the pupils.
88. (p. 296) At first, Hess believed that _____ of the pupils meant a person was experiencing a pleasant emotion, while _____ indicated unpleasant emotion.
89. (p. 296) However, studies have demonstrated this is not the case. Instead, most evidence suggests that changes in pupil size register _____, or _____ rather than pleasant or unpleasant emotion.
90. (p. 296) In response to his critics, Hess has recently developed what he calls the _____, abbreviated _____.
91. (p. 296) This combines _____ response, _____ response, and expressions of liking or disliking to give a fuller measure of emotional reactions to products and advertisements.
92. (p. 296) Most people tend to _____ large pupils as a sign of pleasant feelings and small pupils as a sign of negative feelings.
93. (p. 296) Hess found that men described photos of women with large pupils as feminine, while those with small pupils were viewed as hard or cold. This may explain the once popular use of the drug _____ since it causes the pupils of would-be lovely ladies to dilate.

94. (p. 297) Similar findings on the interpretation of pupil size were found when subjects asked to choose a potential partner for an experiment tended to select persons with _____ pupils.

SELF TEST

1. Voodoo deaths are now thought to be caused by
 - a. witchcraft.
 - b. sympathetic nervous system arousal.
 - c. overreaction of parasympathetic nervous system.
 - d. autonomic nervous system reversals.
2. True-False. According to attribution theory, adding fear, anger, frustration, or rejection to a relationship tends to diminish a couple's feeling for each other.
3. Which theory of emotion first stressed that sensation of emotion follows bodily changes?
 - a. James-Lange
 - b. Schachter-Singer
 - c. Valins
 - d. Cannon-Bard
4. True-False. Events which are directly observed rather than inferred from behavior are referred to as hypothetical constructs.
5. Which theory of emotion states that sensation of emotion and bodily changes occur simultaneously?
 - a. Cannon-Bard
 - b. Schachter
 - c. Valins
 - d. James-Lange
6. True-False. Voice stress analyzers are extremely accurate devices that can help us pinpoint the nature and degree of stress via tiny changes in the tone and modulation of the human voice.
7. Unpleasant emotional reactions are all generated by the
 - a. peripheral nervous system.
 - b. autonomic nervous system.
 - c. automatic nervous system.
 - d. voluntary nervous system.
8. Indicate (by circling) which of the following are basic stages in the preparation for death as outlined by Elisabeth Kübler-Ross.

| | |
|----------------|-------------------------|
| a. acceptance | e. anger |
| b. positioning | f. symbolization |
| c. freezing | g. denial and isolation |
| d. bargaining | h. depression |

9. True-False. The sympathetic branch of the ANS responds much more slowly than the parasympathetic branch.
10. Of the following bodily changes, which is *not* measured by the polygraph?
 - a. heart rate
 - b. GSR
 - c. blood pressure
 - d. brain waves
11. Bridges has found that among human infants, all of the basic emotions appear before age
 - a. 6 months.
 - b. 12 months.
 - c. 24 months.
 - d. 36 months.
12. The only emotional response a newborn infant experiences is
 - a. joy.
 - b. relief.
 - c. excitement.
 - d. fear.
13. True-False. Pupillometrics, developed by Eckhard Hess, has been criticized as inaccurate, but the results show that it is almost 99 percent correct in predicting emotion.
14. The most universal facial expression of emotion is
 - a. smiling.
 - b. grimacing.
 - c. frowning.
 - d. winking.
15. Of the following, which is not a dimension of emotion conveyed by facial expressions?
 - a. activation
 - b. pleasantness-unpleasantness
 - c. attention-rejection
 - d. hope-disappointment
16. True-False. Janis found that low levels of fear were associated with the best adjustment to post-surgery discomforts because patients didn't worry as much.
17. Learned helplessness may result when unpleasant events frequently occur which
 - a. cannot be controlled by the individual.
 - b. are attributed to the negative behaviors of the individual.
 - c. produce high fear levels in the individual.
 - d. are not adapted to by the individual.
18. A recent poll found that only about _____ percent of Americans directly fear their own death.

- a. 4
 - b. 12
 - c. 24
 - d. 40
19. Indicate (by circling) which of the following are included in the National Association for Mental Health's list of depression danger signals.
- a. withdrawal from others
 - b. misdirected and self-directed anger
 - c. decreased dependency on others
 - d. racing thoughts and reduced reaction times
 - e. feelings of guilt in many situations
 - f. hypersensitivity to words and actions of others
 - g. loss of self-esteem; questioning of personal worth
 - h. decreased physical complaints
20. A person who studies death and dying is referred to as a
- a. thanatologist.
 - b. gerontologist.
 - c. cerebrologist.
 - d. mortician.

ESSAY QUESTIONS

1. Compare and contrast three major theories of emotion. Discuss any experiments which have been conducted by the major proponents of those theories and how they support their positions.
2. What is "learned helplessness" and how may it be related to the human condition?
3. Discuss the use of the polygraph and voice stress analyzer as lie detectors. What are your opinions regarding their use in criminal investigations and in employment evaluations?
4. What are some of the major symptoms of "college blues" and what can be done to minimize or reverse them?



Frustration, Conflict, Stress, **14** and Defense

TERMS AND CONCEPTS

frustration
conflict
stress
external frustration
personal frustration
internal frustration
displacement
scapegoating
anxiety
defense mechanism
denial
repression
reaction formation
regression
projection

rationalization
compensation
sublimation
approach-avoidance conflicts
avoidance-avoidance conflicts
approach-avoidance conflicts
double approach-avoidance conflicts
pressure
psychosomatic disorders
hypochondria
general adaptation syndrome (G.A.S.)
Social Readjustment Rating Scale (SRRS)
life change unit (LCU)
Type A personality
Type B personality

IMPORTANT INDIVIDUALS

Hans Selye
Thomas Holmes

Meyer Friedman and Ray Rosenman
Alvin Toffler

PROGRAMMED REVIEW

1. (p. 300) Frustration is defined as a _____ emotional state that occurs when one is prevented from reaching a _____.

2. (p. 300) _____ urges frequently accompany frustration.
3. (p. 300) _____ develops when a person has two or more competing or contradictory motives or goals.
4. (p. 300) _____ occurs when demands are placed on an organism to adjust or adapt.
5. (p. 300) _____ and _____ are two principal causes of stress.
6. (p. 300) _____ frustration is based on conditions outside of the individual which impede progress toward a goal.
7. (p. 300) External frustrations are based upon _____, _____, _____, _____, and other direct blocking of motives.
8. (p. 300) The amount of frustration experienced usually increases as the _____, _____, or _____ of the blocked motive increases.
9. (p. 300) _____ frustrations can accumulate in their effect until a small irritation unleashes an unexpectedly violent response.
10. (p. 300) _____ frustrations are based on an individual's personal characteristics.
11. (p. 301) _____ frustrations usually take the form of conflict.
12. (p. 301) Although aggression is a common response to frustration, there are several others. The first response is usually _____, characterized by more vigorous efforts and more variable responses.
13. (p. 301) Since aggression is disruptive and generally discouraged, it is frequently _____ or redirected.
14. (p. 302) Sometimes long _____ of displaced aggression, in which one person displaces aggression to the next, can be observed.
15. (p. 302) Another form of displaced aggression is _____. Here a person (or a group of people) is habitually treated aggressively.
16. (p. 302) Another major reaction to frustration is _____ or withdrawal, either physically or psychologically leaving the frustrating situation.
17. (p. 302) Two common forms of psychological escape are _____ (pretending not to care) and the _____ of _____.
18. (p. 303) Situations causing frustration, conflict or stress are often accompanied by an unpleasant emotional state known as _____, characterized by tension, uneasiness, apprehension, and worry.

19. (p. 303) The process of avoiding psychological anxiety gives rise to what are called psychological _____, any technique used to distort sources of anxiety or to maintain an idealized self-image.
20. (p. 303) One of the most primitive defense mechanisms is _____, to protect oneself from an unpleasant reality by refusing to accept it.
21. (p. 303) Denial is closely associated with _____, _____, and similar painful and threatening experiences.
22. (p. 304) Freud noticed that his patients had tremendous difficulty recalling shocking or traumatic events from childhood. It seemed that powerful forces were holding these painful memories from awareness. Freud called this _____.
23. (p. 304) _____ is a defense in which impulses are not only repressed, they are also held in check by exaggerated opposite behavior.
24. (p. 304) _____ is another form of escape from anxiety: an escape into the past. In extreme cases, it takes the form of a return to earlier periods of growth.
25. (p. 304) Examples of regression are fairly common among _____; most parents who have a second child have had to put up with at least some regression by the older child.
26. (p. 304) _____, another defense mechanism, is the unconscious process where an individual transfers his or her own shortcomings or unacceptable impulses to others. By exaggerating these unacceptable traits in others, the individual lessens his or her own failings.
27. (p. 304) When the explanations offered for our behavior are reasonable and convincing, but not the real reasons, we say a person is _____. This defense mechanism unconsciously provides us with reasons for behavior we ourselves find somewhat questionable.
28. (p. 305) There are two defense mechanisms that have a decidedly more positive quality to them than those previously described. One of these, _____, is a form of behavior whereby a person tries to make up for some personal defect or fault.
29. (p. 305) _____ reactions are defenses against feelings of inferiority. If directed at overcoming the deficiency itself, they may be constructive.
30. (p. 305) Freud coined the term _____ to describe what he considered the most mature of the defense mechanisms. It is defined as working-off frustrated desires (especially sexual desires) in substitute activities that are constructive and accepted by society.
31. (p. 306) Conflict is a special kind of _____ that occurs when an individual must make a decision between incompatible or contradictory outcomes.

32. (p. 306) The simplest conflict comes from having to choose between two positive or desirable alternatives and is called _____-_____ conflict.
33. (p. 306) When forced to choose between two negative or undesirable alternatives, an _____-_____ conflict develops.
34. (p. 306) When faced with severe avoidance-avoidance conflicts, people often _____, finding it impossible to make a decision or to take action.
35. (p. 307) In other cases where escape is possible, people may react by _____ the _____ so as to pull out of avoidance situations entirely.
36. (p. 307) In an _____-_____ conflict, a person is simultaneously attracted to, and repelled by, the same activity or goal.
37. (p. 307) In these situations, a person will feel _____ about the goal in question.
38. (p. 307) Ambivalence is usually translated into _____ approach.
39. (p. 307) The most typical of the choices we usually must make is known as _____-_____ conflicts because each alternative has both positive and negative qualities.
40. (p. 307) When faced with this situation, people tend to _____ or waiver between the alternatives.
41. (p. 308) The effects of stress have been investigated by studying monkey pairs subjected to electric shock. When the executive monkey could postpone or turn off shock, while the other (nonexecutive) monkey had no control, the _____ monkey developed stomach ulcers while the other did not.
42. (p. 308) Psychologists originally assumed the executive monkeys experienced more psychological stress due to their greater _____. But we now know that the monkeys selected to be executives were more _____ to the shocks.
43. (p. 309) _____ occurs when activities must be speeded up, when deadlines must be met, when extra work is added unexpectedly, or when a person must work at, or near, capacity for long periods.
44. (p. 309) While overload can be stressful, an _____ on a person's system can be stressful also. This is tied into the role of _____ in producing stress.
45. (p. 309) Among subjects subjected to an unpleasant shock-avoidance learning task, those subjects allowed to select their own rest periods showed _____ stress levels than those who could not.

46. (p. 309) Control, or lack of it, also carries over to the after-effects of stress. Among subjects jolted by an extremely loud and unpleasant noise, those who could not control it did worse on later tests of _____ and were more easily _____.
47. (p. 310) The _____ of stressful events also alters their impact. In one experiment, rats given shocks without warning developed severe _____, while those given shocks preceded by a warning tone or those receiving the tone alone showed none.
48. (p. 310) Ulcers are considered a _____ disorder, a disease where psychological stress causes actual damage to the tissues of the body.
49. (p. 310) Psychosomatic problems are not the same as _____, where the victim suffers from imaginary diseases.
50. (p. 310) Other psychosomatic disorders include _____, _____ (skin eruptions), _____, muscle tension and _____ headaches, _____, hypertension (high blood pressure), _____ (ulceration of the colon), and _____ disease.
51. (p. 310) It is estimated that _____ - _____ of all patients who go to see a doctor either have a psychosomatic problem, or have a problem complicated by psychosomatic symptoms.
52. (p. 310) The answer to how stress causes physical damage seems to lie in the body's defense against stress, a pattern of reactions known as the _____ (G.A.S.).
53. (p. 310) The first stage of G.A.S., according to Hans Selye, is called the _____. During this stage the body mobilizes its defenses against stress.
54. (p. 310) During this first phase, the pituitary gland secretes a hormone that causes the adrenal glands to increase their output of _____ and _____, which speed up some bodily processes and slow down others to concentrate resources where needed.
55. (p. 310) During the alarm reaction, people experience such symptoms as _____, _____, _____, sore muscles, etc.
56. (p. 311) If stress continues, the second stage, called the _____ of _____, begins. At this point the body's defenses are stabilized and symptoms disappear, but resistance to other stresses may be lowered.
57. (p. 311) Research demonstrates that animals placed in an extremely cold environment become more resistant to the cold, but more susceptible to _____.
58. (p. 311) It is during this second stage that the first signs of _____ begin to appear.

59. (p. 311) If stress continues, the _____ of _____ may be reached. In this stage, the body's resources are exhausted and a psychosomatic disorder, organ failure, or complete collapse results.
60. (p. 311) Animals examined by Selye during the latter stages of the G.A.S. showed enlargement and discoloration of the _____, intense shrinkage of the _____, _____ and _____, and deep bleeding _____.
61. (p. 313) Thomas Holmes has demonstrated that stressful events reduce the body's natural defenses against disease and increase the likelihood of _____. Disaster and sorrow often precede illness.
62. (p. 313) More surprising is the finding that almost any major _____, whether positive or negative, requires adjustment and increases susceptibility to accident and illness.
63. (p. 313) Holmes and his associates have developed the _____ (SRRS) to help determine the potential health hazards one faces when stresses accumulate.
64. (p. 313) The SRRS expresses the effect of life events in _____ (LCUs).
65. (p. 313) While some studies have shown that elevated LCUs are associated with frequent illness, the SRRS is not foolproof. Nonetheless, if your score goes much over _____, an adjustment in your life may be called for.
66. (p. 314) Friedman and Rosenman have studied the personality characteristics of people who are especially prone to suffering heart attacks. They classified people into two categories: _____ personalities (those who run a high risk of heart attack), and _____ personalities (those unlikely to have heart attacks).
67. (p. 314) They found that the rate of heart disease among Type As was more than _____ that among Type Bs.
68. (p. 315) Type A people are hard-driving, ambitious, highly competitive, achievement oriented, and striving. They are characterized by a _____ of _____, seemingly unsatisfied with the normal pace of events.
69. (p. 316) A psychologist studying frustration forced rats to jump off a platform toward two elevated doors, one of which was randomly locked and caused the animal to bounce off and fall into a net, the other of which led to safety. Most rats adopted a _____ of choosing the same door every time, even when this door was later permanently locked.
70. (p. 316) Persistence is different from stereotyped responding, but all too often people are not persistent because they fear _____.

71. (p. 316) On the other hand, persistence that is not _____ can lead to stereotyped responses. It is important to know when to quit and establish a new direction.
72. (p. 316) There are several suggestions to help avoid needless frustration:
- (1) Try to identify the _____ of your frustration.
 - (2) Is it something that can be changed?
 - (3) If it can be changed, is the effort worth it?
 - (4) Is there a real or imagined barrier?
73. (p. 316) There are four additional suggestions which apply to conflict:
- (1) Don't be _____ when making important decisions.
 - (2) Try out important decisions _____ when possible.
 - (3) Look for workable _____.
 - (4) When all else fails, make a decision and live with it.
74. (p. 318) Journalist Alvin Toffler predicts "shattering stress and disorientation" and "psychological and physical illness on a massive scale" due to what he calls _____.
75. (p. 318) The real essence of Toffler's idea is that the _____ of change is _____ and threatening us with a "massive adaptational breakdown."
76. (p. 318) Toffler's point is that our own culture is changing so quickly that a kind of _____ occurs in the context of time, not by travel to another country.
77. (p. 318) Toffler analyzes three dimensions of such overly rapid change. The first is _____ reflected in rapid changes in residence, employment, friends, life styles, etc.
78. (p. 318) _____ is represented by the incredible deluge of scientific and technological innovations we are confronted with: test tube babies, genetic engineering, farming the ocean floor, etc.
79. (p. 318) The third dimension, _____, refers to overstimulation brought on by too many choices, by too much too fast.

SELF TEST

1. You have been preparing for an examination on very difficult material. You have scheduled your time so as to have just enough and then your teacher moves up the date of the examination. You will probably suffer which type of frustration?
 - a. external
 - b. personal
 - c. internal
 - d. impersonal
2. When you protect yourself from an unpleasant reality by refusing to perceive it, this process is called _____.

- a. repression.
 - b. fantasy.
 - c. denial.
 - d. sour grapes.
3. Of the following, which are examples of the major psychosomatic disorders? (Indicate by circling.)
- | | |
|------------------------|----------------|
| a. migraine headaches | f. asthma |
| b. stomach ulcers | g. warts |
| c. diarrhea | h. eczema |
| d. high blood pressure | i. tooth decay |
| e. pneumonia | j. symbiosis |
4. When you prevent painful or dangerous thoughts from entering consciousness, the process is called
- a. denial.
 - b. repression.
 - c. delusion.
 - d. projection.
5. If you are forced to choose between taking vile-tasting medicine and being sick, you may experience a (an)
- a. approach-approach conflict.
 - b. approach-avoidance conflict.
 - c. avoidance-avoidance conflict.
 - d. G.A.S.
6. The old song by the Lovin' Spoonfuls, called "Did You Ever Have to Make Up Your Mind," describes the predicament of a young man trying to decide between two lovely young ladies. The young man experiences a (an)
- a. approach-approach conflict.
 - b. approach-avoidance conflict.
 - c. avoidance-avoidance conflict.
 - d. G.A.S.
7. Preventing dangerous impulses from being expressed by exaggerating opposite behavior defines
- a. projection.
 - b. psychological closure.
 - c. reaction formation.
 - d. regression.
8. True-False. Psychological stress can cause psychological problems, but rarely causes physical illness.
9. When you get an "F" on a test and then insult the person sitting next to you, you are showing _____ aggression.
- a. repressed
 - b. suppressed
 - c. displaced
 - d. misplaced

10. Minorities have often served as _____ for the aggressions of whole societies.
 - a. examples
 - b. scapegoats
 - c. facilitators
 - d. primers
11. A score of _____ points on the Social Readjustment Rating Scale indicates an increased chance of illness or accident.
 - a. 300
 - b. 120
 - c. 250
 - d. 280
12. True-False. Hypochondria is a form of psychosomatic illness.
13. True-False. The General Adaptation Syndrome describes the stages that one's body goes through in adapting to stress.
14. Retreating to an earlier level of development or to earlier less demanding habits or situations is called
 - a. suppression.
 - b. repression.
 - c. projection.
 - d. regression.
15. _____ as a defense mechanism means attributing to others one's own shortcomings or unacceptable feelings.
 - a. Projection
 - b. Compensation
 - c. Sublimation
 - d. Rationalization
16. True-False. About one-half of all patients who go to see a doctor either have a psychosomatic problem, or have a problem complicated by psychosomatic symptoms.
17. To justify one's own behavior by giving reasonable, but false, reasons for it is to _____ your behavior.
 - a. rationalize
 - b. project
 - c. isolate
 - d. sublimate
18. Approach-avoidance conflicts frequently evolve into
 - a. partial approach.
 - b. complete approach.
 - c. avoidance-avoidance conflicts.
 - d. approach-approach conflicts.

19. Internal frustration results from
 - a. personal conflicts.
 - b. psychosomatic disorders.
 - c. aggression.
 - d. external barriers to goals.
20. True-False. Heart attack prone individuals frequently suffer from a chronic sense of time urgency.
21. Counteracting a real or imagined weakness by emphasizing desirable traits or by seeking to excel in others defines the process of
 - a. compensation.
 - b. rationalization.
 - c. reaction formation.
 - d. sublimation.
22. _____ is defined as working-off frustrated desires in substitute activities that are constructive or socially acceptable.
 - a. Sublimation.
 - b. Compensation.
 - c. Rationalization.
 - d. Projection.
23. Which of the following is not one of Toffler's future shock dimensions?
 - a. transience
 - b. relativity
 - c. diversity
 - d. novelty

ESSAY QUESTIONS

1. Describe the evidence indicating that stress can lead to psychosomatic illness.
2. What different factors seem to be involved in determining whether an event or situation will be stressful?
3. Compute and discuss your score on the Social Readjustment Rating Scale. Can you think of times in your own life when an illness or accident might have been the result of life changes/stresses?
4. Discuss the various types of conflict, their characteristics, and give examples from your own experience.

Human Development 15

TERMS AND CONCEPTS

developmental psychology
neonate
reflexes
 grasping
 rooting
 sucking
 Moro
looking chamber
nature vs. nurture controversy
maturation
telegraphic speech
principle of motor primacy
intrauterine environment
congenital problems
fetal alcohol syndrome
critical period
imprinting
motherless monkeys
feral children
deprivation dwarfism

hospitalism
contact comfort
colostrum
stages of development
 sensorimotor
 preoperational
 concrete operational
 formal operations
accommodation
chromosomes
deoxyribonucleic acid (DNA)
genes
 dominant
 recessive
sex-linked traits
behavior genetics
genetic counseling
amniocentesis
eugenics
genetic engineering
cloning

IMPORTANT INDIVIDUALS

Jerome Bruner
Robert Fantz
Jerome Kagan
David McNeill
Noam Chomsky

Konrad Lorenz
Harry Harlow
René Spitz
Jean Piaget
Morris Holland

PROGRAMMED REVIEW

1. (p. 323) _____ can be described as the study of progressive changes in behavior and abilities from conception to death.
2. (p. 324) The human _____ or newborn possesses a number of reflexes which improve its chances for survival. For example, an object pressed to its palm will be grasped with surprising strength. This reflex is appropriately called the _____ reflex.
3. (p. 324) The _____ reflex is demonstrated by touching the baby's cheek. The baby will immediately turn toward your finger as if searching for something. This reflex helps the infant find a bottle or breast.
4. (p. 324) When a nipple touches the infant's mouth, the _____ reflex helps it to obtain the food it needs.
5. (p. 324) Also of interest is the _____ reflex. If the baby's head is allowed to drop, or if it is startled by a loud noise or other frightening stimulus, it will make movements similar to an embrace.
6. (p. 324) Andrew Meltzoff and Keith Moore have found that babies are born _____, that is they consistently imitate adult facial features. This is obviously an aid to rapid learning in infancy.
7. (p. 324) Jerome Bruner cites several interesting examples demonstrating infant intelligence. One study showed that _____ to _____ week old babies showed signs of understanding that a person's voice and body are _____. If a baby heard its mother's voice coming from where she was standing, it remained calm. If her voice came from a loudspeaker several feet away, the baby cried.
8. (p. 325) Another experiment cited showed that six-week-old babies quickly learn to suck faster on a pacifier to bring a movie into clearer focus. Thus, babies seemed to have grasped the significance of their _____.
9. (p. 325) To test infant vision, Robert Fantz invented a device called a _____.
10. (p. 325) Fantz places a child on its back inside the chamber and places two objects overhead. By observing the movements of the infant's eyes, and the _____ reflected from their surface, it is possible to tell what the infant is looking at.
11. (p. 325) Using this technique, Fantz found that three-day-old babies preferred _____ patterns to _____ colored rectangles.
12. (p. 325) Other researchers have determined that infants are more excited by _____ and _____, and that they will look longer at _____ and _____ than they will at other colors.

13. (p. 325) Infants spend more time looking at a _____ face pattern than a scrambled one or a colored oval.
14. (p. 325) When real human faces were used, Fantz found that _____ faces were preferred to _____ faces.
15. (p. 325) This preference reverses at about age _____, when unusual objects begin to hold greater interest for the child.
16. (p. 325) Jerome Kagan showed three-dimensional face masks to _____-year-olds and found they were fascinated by a face with eyes on the chin and a nose in the middle of the forehead.
17. (p. 326) Infant visual preference seems to follow a progression. At first bright and _____ patterns catch their eye, next there is a preference for the _____, followed by interest in the _____.
18. (p. 327) For many years psychologists have debated the _____ vs. _____ controversy, trying to determine the relative importance of heredity and environment in the development of human beings.
19. (p. 327) Heredity is certainly an important factor. It has been estimated that the genetic information carried in the 46 _____ of a single human cell would fill thousands of 1,000-page books if translated into words.
20. (p. 327) Heredity instructions carried by the chromosomes influence development throughout life by affecting the sequence of growth, the timing of puberty, and the course of aging. Thus, the broad outlines of the _____ are universal.
21. (p. 327) While both heredity and environment are separately important in development, the recognition that both are important and _____ in fact represents a more realistic approach. There is a constant interplay or _____ between the forces of nature and nurture.
22. (p. 327) Children show individual differences almost immediately after birth. Kagan found that newborn babies differ in various aspects of _____.
23. (p. 327) Kagan reliably separated babies into three categories, including _____ children, those who are relaxed and agreeable (about _____ percent of those observed).
24. (p. 327) _____ children tend to overreact to most situations (about _____ percent of those observed).
25. (p. 327) _____ to _____ children are restrained and unexpressive. These children might be described as shy (about _____ percent of those observed).

26. (p. 327) Kagan has recently completed a follow-up on ten-year-old children studied as infants. He found little connection between infancy and later childhood for dimensions like _____, _____, or _____.
27. (p. 328) But because of inborn differences in temperament, babies rapidly become _____ in their own development. They change their environment at the same time they are changed by it.
28. (p. 329) Thus, there appear to be at least three factors which combine to determine a person's developmental level at any stage in life. These are _____, _____, and the individual's own _____.
29. (p. 329) In some areas of development, the effects of heredity outweigh those of environment. For example, among Hopi children those restrained for the first nine months of life learned to walk at about the same age (_____ months) as unrestrained children, despite their relative lack of practice.
30. (p. 329) _____ refers to growth and development of the body and the nervous system. It underlies the orderly unfolding of many basic responses.
31. (p. 329) While the _____ of maturation varies from child to child, the _____ is virtually universal.
32. (p. 329) Thus, increased motor control usually proceeds from _____ to _____, and from the _____ of the body to the _____.
33. (p. 329) The development of language is also closely tied to maturation. By _____ month of age, the infant can control crying enough to use it as an attention-getting device.
34. (p. 329) Around _____ to _____ weeks of age, babies begin cooing—the repetition of vowel sounds like "oo" and "ah."
35. (p. 329) By age _____ months, the nervous system has matured enough to allow the child to _____ objects, to _____, _____, _____, and to _____.
36. (p. 329) At about _____ year of age, the child can stand alone for a short time and can respond to words.
37. (p. 329) Between the ages of _____ to _____ years, the child becomes able to stand and walk alone. By this time, the child's vocabulary may include from _____ to _____ words.
38. (p. 329) Usually at this age, words are arranged into simple two-word sentences called _____.

39. (p. 329) By first grade the child can understand around _____ words and can use about _____.
40. (p. 329) _____ like David McNeill and Noam Chomsky believe that humans have a _____ to develop language.
41. (p. 329) If learning were the only cause of language development, it might be expected that words and sentences like those commonly used by adults would be the first acquired. Instead, children's first sentences tend to be drawn from a limited number of _____.
42. (p. 331) The growth of _____ also closely parallels development of the nervous system.
43. (p. 331) The probability that children will recognize themselves in a mirror is very low at _____ months, but jumps dramatically through the _____ year.
44. (p. 331) The importance of maturation in other basic skills was demonstrated in the experiment in which a nine-month-old human and a chimp were raised together. This study showed that Gua progressed more rapidly at first, but was quickly surpassed by Donald at about _____ months of age.
45. (p. 331) Other studies have shown that maturation creates a condition of _____ for learning.
46. (p. 331) This principle, known as the principle of _____, states that until the necessary physical structures are mature, no amount of _____ will be sufficient to establish a skill.
47. (p. 331) This principle was demonstrated in an experiment in which a group of two- and three-year-old children were given twelve weeks of special practice at learning to climb a ladder. Then a second group (matched in age to the first) was given practice at ladder climbing. The second group caught up to the first after _____ week, even though they missed out on the previous twelve weeks of practice. Their bodies had continued to mature, hence they learned more rapidly and efficiently when given the chance.
48. (p. 332) In considering the effects of environment on behavior, we must go back as far as the _____ environment of the womb. If a mother's health or nutrition is poor, if she contracts certain diseases such as German measles or syphilis, uses drugs, or is exposed to x-rays or atomic radiation, the resultant damage to the fetus is referred to as a _____.
49. (p. 332) These are distinct from _____, which are inherited.
50. (p. 333) Even though there is no direct intermingling of blood when nourishment is transferred from mother to fetus, some drugs such as _____,

- _____, or _____ still reach the fetus and may mean the infant will be born with a drug addiction.
51. (p. 333) Many common prescription and over-the-counter drugs are capable of producing fetal malformations. They include: general _____, _____, _____, excessive amounts of vitamins _____, _____, and _____, some _____, opiates, tranquilizers, synthetic _____, and possibly even _____.
 52. (p. 333) Repeated heavy drinking by a pregnant woman can produce a pattern known as _____, characterized by premature birth, underdevelopment of the head, and a variety of bodily defects and deformations.
 53. (p. 333) Smoking can elevate or lower the _____ of the unborn child, and the mother who smokes heavily is more prone to spontaneous _____.
 54. (p. 333) Also, heavy smokers run a higher risk of _____ and tend to give birth to _____ babies, both of which increase the chances of infant sickness and death after birth.
 55. (p. 333) Psychological stress experienced by the mother may have an effect, because _____ released into the mother's bloodstream is transferred to the fetus. There is no truth, however, to stories about babies acquiring fears, etc., because the mother feared something while pregnant.
 56. (p. 333) The quality of mothering during the first few years of life is very important. One study of maternal influences showed that whether children were unusually competent or had a low degree of competence was set by age _____.
 57. (p. 333) To understand how this was possible, children and their mothers were observed at home. On the basis of several years of research, five types of mothers were identified. These included the _____ mother, the _____ mother, the _____ mother, the _____ mother, and the _____ mother. Be sure you know the characteristics of each.
 58. (p. 334) Fathers also contribute to the infant's development, but in different ways. Generally, the father's main role tends to be that of a _____ for the infant. They spend _____ or _____ times as much time playing with their infants as they do in caretaking.
 59. (p. 335) Fathers are more visually _____, are much more _____, more physically arousing, and more likely to engage in _____.

60. (p. 335) _____ are times when susceptibility to environmental influences (both positive and negative) are increased.
61. (p. 335) Critical periods usually correspond to periods of rapid development. For example, the drug _____ interferes with limb formation in the developing fetus. When taken during the sixth to eighth week of pregnancy, the result is severe birth defects.
62. (p. 335) Often, certain events must occur during a critical period for organisms to develop normally. Konrad Lorenz has demonstrated this in his experiments on the rapid and early establishment of permanent behavior patterns called _____.
63. (p. 335) Lorenz found that infant geese learned to follow moving objects seen early in development. This imprinting process occurs during a very brief critical period. For instance, Hess found that if ducklings are not allowed to imprint on their mother or some other object within _____ hours after hatching, they never will.
64. (p. 336) While true cases of imprinting are limited to birds and other animals, human infants do form an _____ to their primary caretakers (usually parents).
65. (p. 336) There is a critical period for this attachment. Until babies are about _____ months old, they show no more attachment to parents than they do to strangers. After this period, they begin to display _____ when left alone or with strangers.
66. (p. 336) While stranger anxiety has been disputed as a universal, there is no question that babies display _____ when their parents leave them alone or alone with strangers.
67. (p. 336) Separation anxiety develops at around _____ to _____ months of age and disappears later when parting with parents becomes a frequent event.
68. (p. 336) Research with rhesus monkeys suggests that infant attachments have lasting effects. Harry Harlow has shown that baby monkeys separated from their mothers and raised in isolation never develop normal _____ behaviors and make very poor mothers if mated.
69. (p. 336) These "motherless monkeys" are coldly rejecting or indifferent to their babies and may brutalize or injure them. However, the effects of isolation can be altered. This is accomplished by placing the abnormal monkey with younger monkeys for a _____ week "therapy" session.
70. (p. 336) Meeting a baby's affectional needs is an important factor in early development. An important task of the first year of life is creation of a bond of trust and affection between the infant and at least one other person. A later capacity to experience _____, _____ relationships may depend on it.

71. (p. 337) While the existence of so-called _____ (raised in the wild) have rarely been documented, there are numerous cases of children who have spent the first five or six years of life in closets, etc. These children demonstrate the destructive effects of early _____, since they are usually mute, severely retarded, and emotionally damaged.
72. (p. 337) Some of these children suffer from _____—stunted growth associated with isolation, rejection, or general deprivation in the home environment.
73. (p. 337) René Spitz has investigated the damaging effects of deprivation in early childhood. He coined the phrase _____ to refer to a group of foundling-home babies suffering from a pattern of deep depression.
74. (p. 337) The foundling-home infants suffered from a lack of mother figures as well as _____, which resulted in _____ (dependency) depression.
75. (p. 338) Experiments with animals have confirmed the destructive effects of a lack of stimulation in infancy. Harry Harlow found that infant rhesus monkeys separated from their real mothers always preferred surrogate mothers with a soft terry cloth surface. Harlow concluded from this that an important dimension of early stimulation is _____ supplied by touching, holding, and stroking an infant.
76. (p. 338) Researchers working with humans have found much the same thing. For instance, just _____ minutes of extra touching a day can affect the developmental rate of infants in an institution.
77. (p. 338) Many psychologists have advocated breast feeding of infants as a means of assuring contact comfort. In addition, the breast-feeding mother produces _____ rather than milk for the first few days after birth. However, the advantages of breast feeding are not overriding.
78. (p. 339) An _____ environment is one that has been deliberately made more novel, complex, and richly stimulating. One study of its effects upon development involved giving newborn infants several kinds of extra stimulation each day for several months. These conditions did cause visually directed reaching to occur an average of _____ months early.
79. (p. 340) In considering the growth of intelligence in infants, it is estimated that _____ percent of adult intelligence is developed by age four, and eighty percent by age _____.
80. (p. 340) A child's intelligence differs from an adult's in terms of quality and quantity. Generally, a child's thinking is less _____ than that of an adult; they use fewer generalizations, categories, or principles.
81. (p. 340) An indication of the concrete nature of children's thinking is their failure to recognize the _____ of objects. For a very young child, out of sight can literally mean out of mind.

82. (p. 340) Before age six or seven, children are unable to make _____. That is, if you show a child a short, wide glass full of milk and a tall, narrow glass, the child will consider the taller glass to contain more fluid.
83. (p. 340) Jean Piaget has investigated the series of _____ that children progress through intellectually. He believes that the ability to solve some problems is a _____ for solving others. This is the basis of his theories of cognitive development.
84. (p. 341) Piaget's first stage, known as the _____ stage, includes the first _____ years of life.
85. (p. 341) During the first stage, the child shows a gradual emergence of the concept of _____. At about age _____, the child begins to pursue disappearing objects. By age _____ the child can anticipate the movement of an object behind a screen. These developments indicate that the child's conceptions are becoming more stable.
86. (p. 341) During the _____ stage (age 2-7), the child is developing an ability to think _____ and to use language.
87. (p. 342) During this stage, the child is also quite _____, usually taking the perspective that everything revolves around them. This helps us understand why children of this stage can seem so selfish or uncooperative at times.
88. (p. 342) By _____ to _____ years of age, the child enters the _____ stage. An important development here is the mastery of the concept of _____.
89. (p. 342) During this period, a child's thought begins to include concepts of time, space, and number. They also learn the ability to reverse thoughts or operations. _____ and _____ are also used, and the child can think logically about concrete objects or situations.
90. (p. 342) The final stage, the _____ stage, includes ages _____ years and up. Here, thinking is based more on _____. The child in this stage has come to consider hypothetical possibilities also.
91. (p. 345) In considering maturation rates, it is wise for parents to recognize the difference between the _____ child and the _____ child.
92. (p. 345) Developmental norms specifying ages at which particular abilities appear are based on _____; there is always a wide range of normal variation around this figure.
93. (p. 345) The possibility of providing too much stimulation (enriched environments) is remote, unless complex stimulation comes too far in advance of an infant's ability to respond to it. Babies _____ weeks or less may become fussy and irritable in an enriched environment.

94. (p. 345) Kagan's studies of babies in a primitive Guatemalan village provides evidence that enriching the environment during later childhood is also worthwhile. Babies raised in darkened huts were severely retarded by age _____, but became beautiful, normal children by age _____ due to the rich stimulation of village life during later childhood.
95. (p. 345) According to Piaget, a child's intellect develops through a process of _____; old concepts and thinking habits become obsolete and are adapted or discarded to fit new demands.
96. (p. 345) This suggests that the ideal way to stretch a child's intellect is to provide experiences that are only slightly _____, _____, or _____. This gradual expansion helps minimize the frustration and withdrawal that experiences too far beyond the familiar may cause.
97. (p. 346) Morris Holland offers several suggestions on how to relate to children at the right level. He suggests that during the sensorimotor stage _____ play is most effective.
98. (p. 346) During the preoperational phase, the child should be encouraged to _____ things in different ways.
99. (p. 346) During the concrete operational stage the child is beginning to use generalizations, but expect a degree of _____ in the child's ability to apply concepts of time, space, quantity, and volume to new situations.
100. (p. 346) During the formal operations stage, it becomes more realistic to explain things verbally or symbolically. Encourage the child to create _____ and to imagine how things could be.
101. (p. 347) It is estimated that at the moment of conception the possible combinations of sperm and ovum could produce _____ of genetically different children.
102. (p. 347) The nucleus of every cell in the body contains 46 thread-like structures called _____ which transmit coded instructions of heredity.
103. (p. 347) Chromosomes are made up of the giant chemical molecule _____ or DNA, the arrangement of which forms a code carrying genetic information.
104. (p. 347) _____ are smaller units of a chromosome or, actually, just an area on the DNA "ladder" containing instructions that affect a particular process or personal characteristic. Every cell has at least _____.
105. (p. 347) In some cases a single gene is responsible for a particular inherited characteristic, but most characteristics are _____, or determined by many genes working in combination.

106. (p. 347) When a gene is _____, the trait it controls will be present every time the gene is present.
107. (p. 347) When a gene is _____, it must be paired with an identical gene before its effect will be expressed.
108. (p. 348) The sex of a child is genetically determined. When two "_____" chromosomes are inherited the child will be a female, but an "_____" chromosome paired with a "_____" chromosome yields a male.
109. (p. 348) Some traits are _____, that is carried only by genes on either the X or Y chromosome. Color blindness, which is carried on the X chromosome, is a good example.
110. (p. 348) The study of inherited behavioral characteristics is known as _____.
111. (p. 348) Many behavioral traits seem to be genetically transmitted. For example, _____ of animals can produce striking differences in social behavior, emotionality, learning ability, aggressiveness, and so on.
112. (p. 348) Studies with humans must rely mainly upon comparisons of _____ and other close relatives. They demonstrate that _____, some _____, and other complex human qualities are directly influenced by heredity.
113. (p. 348) It is now possible to identify a large number of genetic disorders. Prospective parents who suspect that they may be carriers of genetic disorders may seek _____ to help calculate the risk of a genetic disorder.
114. (p. 348) Parents who are potential carriers of genetic disorders may elect to have a child but then have a test performed during pregnancy to detect the presence or absence of the genetic defect. Such prenatal testing is done by _____, which involves taking amniotic fluid from the mother's womb. This is usually done at about the _____ week of pregnancy.
115. (p. 348) Plants and animals have been improved more in the past 50 years than in the previous 5,000. This is primarily due to _____ or selective breeding for desirable characteristics.
116. (p. 348) Through the use of _____ it may someday become possible to remove defective genes and replace them with normal ones. This will soon be possible with one or two genes, but tampering on a major scale is not likely in the near future.
117. (p. 349) _____, the production of an entire organism from a single cell, is also unlikely, at least where humans are concerned.

118. (p. 349) Infant sex selection is likely to become possible quite soon. This will be done by separating X- and Y-bearing sperm and then _____ the ovum with all male-producing or all female-producing sperm.
119. (p. 349) It has also been predicted that ultimately people will carry "gene identity cards" based on _____ made during childhood. These would show what hereditary diseases a person is predisposed to, or which may be passed on in child bearing when combined with the gene pattern of a mate.

SELF TEST

- Of the following, which are important human infant reflexes? (Indicate by circling.)
 - neonate
 - rooting
 - sucking
 - drinking
 - Moro
 - imprinting
 - grasping
 - Bruner
- Of the following, which sequences represent the progression in the infant's visual interest?
 - attraction to complex patterns—preference for the familiar—interest in the unusual
 - preference for the unusual—interest in complex patterns—attraction to the unfamiliar
 - indifference to complex patterns—preference for the unusual—attraction to the familiar
 - preference for simple rectangles—attraction to scrambled faces—preference for novel stimuli
- True-False. Amniocentesis is the process of genetic engineering responsible for sex selection prior to conception.
- True-False. Telegraphic speech refers to the period of language development marked by a continuous outpouring of connected and repeated language sounds.
- Of the following, which are defined by the phrase, "until the necessary physical structures are mature, no amount of practice will be sufficient to establish a skill?" (Indicate by circling.)
 - principle of readiness
 - maturation
 - principle of motor primacy
 - principle of accommodation
- True-False. A mother's psychological stress, physical condition, preferences, and tastes all directly affect a child while the mother is pregnant.
- True-False. Recessive genes determine particular traits only when paired with dominant genes.

8. Hospitalism appears to result from
 - a. lack of stimulation.
 - b. sensory overload.
 - c. perceptual stimulation.
 - d. motor deficiencies.
9. True-False. Harlow's work with surrogate mothers has shown that contact comfort is an important dimension of early stimulation.
10. It is estimated that _____ percent of adult intelligence is developed by age four.
 - a. 25
 - b. 50
 - c. 75
 - d. 90
11. According to Piaget, the development of the concept of object permanence takes place during the
 - a. sensorimotor stage.
 - b. preoperational stage.
 - c. concrete operational stage.
 - d. formal operations stage.
12. Mastery of the concept of conservation usually occurs during the
 - a. sensorimotor stage.
 - b. preoperational stage.
 - c. concrete operational stage.
 - d. formal operations stage.
13. The use of abstract principles and hypothetical possibilities occurs predominantly during the
 - a. sensorimotor stage.
 - b. preoperational stage.
 - c. concrete operational stage.
 - d. formal operations stage.
14. True-False. Reversibility of thoughts or operations is usually an ability acquired during the preoperational stage.
15. True-False. Psycholinguists like McNeill and Chomsky believe that humans have a biological predisposition to develop language.
16. The looking chamber was devised by Robert Fantz to study
 - a. development of infant vision.
 - b. critical periods in monkey development.
 - c. the principle of motor primacy.
 - d. how infants establish preferences for certain auditory stimuli.
17. True-False. While sensory deprivation can seriously affect development, environmental richness seems to have little influence.

18. In general, increased muscular control proceeds
 - a. from head to toe.
 - b. from toe to head.
 - c. from body extremities to the center.
 - d. at an equal rate throughout the body.
19. True-False. Imprinting is an instinctive, innate ability that can take place at any time.
20. True-False. DNA is composed of giant molecules called chromosomes which carry coded genetic instructions.
21. True-False. Experiments have shown that rats raised in stimulus enriched environments have the same brain size as control subjects, but significantly better temperaments.
22. True-False. Environmental effects on development do not occur until after birth.
23. If you touch an infant's cheek, it will turn toward you immediately. This reflex is known as the _____ reflex.
 - a. Moro
 - b. rooting
 - c. grasping
 - d. sucking
24. Developmental psychology is the study of progressive changes in behavior
 - a. during infancy.
 - b. during adolescence.
 - c. during old age.
 - d. throughout life.
25. True-False. In most cases a child can be considered abnormal if it has not demonstrated a certain ability during the developmental norm established for children in general.
26. True-False. Congenital problems are those which result from the transmission of abnormal genes during conception.

ESSAY QUESTIONS

1. Explain the biological components of heredity. Discuss some of the new developments in genetic counseling, genetic engineering, sex selection, and eugenics.
2. List each of the developmental stages suggested by Jean Piaget. What are the major characteristics of each?
3. What is the nature/nurture controversy? What aspects of development seem to be predominantly influenced by each factor? What is the current view of this issue?
4. Discuss the importance of mothering in development. What are the different types of mothers, their characteristics and effects? Discuss the work of Harry Harlow and how this applies to the issue.

Challenges of Development: 16

The Cycle of Life

TERMS AND CONCEPTS

universal life stages
developmental tasks
life review
enuresis
encopresis
anorexia nervosa
pica
delayed speech
stuttering
hyperactivity
minimal brain dysfunction (MBD)
autism
echolalia
sensory blocking
sensory "spin-out"
behavior modification

operant shaping
menopause
climacteric
biological aging
gerontologist
fluid intelligence
crystallized intelligence
disengagement theory
activity theory
ageism
Parent Effectiveness Training (PET)
cryonics
hospice
living will
passive euthanasia
active euthanasia

IMPORTANT INDIVIDUALS

Erik Erikson
Frederick Leboyer
Marshall Klaus
John Kennel
Ivar Lovaas
Roger Gould

Daniel Levinson
Alex Comfort
Bernice Neugarten
Haim Ginott
Stanley Coopersmith
Thomas Gordon

PROGRAMMED REVIEW

1. (p. 352) There are six broad life stages which share certain similarities. These phases include _____, _____, _____, _____, _____, and _____.
2. (p. 352) Each stage confronts a person with a new set of _____ to be mastered. These are skills that must be acquired or personal changes that must take place for optimal development.
3. (p. 352) Personality theorist Erik Erikson suggests that we face a specific _____ dilemma at each stage of life.
4. (p. 352) During early childhood (ages 0-6 years), there are several life crises. During the first year of life, Erikson believes that a basic attitude of _____ or _____ is formed.
5. (p. 352) During stage two (1-3 years), the life crisis involves _____ vs. _____ and _____.
6. (p. 352) During stage two, parents help their children develop a sense of _____ when they encourage them to try new skills and reassure them if they fail. Consistent _____ may limit development by denying opportunities for self-direction.
7. (p. 352) During stage three (3-5 years), the child moves from simple self-control to an ability to take initiative. Thus, this stage involves the conflict of _____ vs. _____.
8. (p. 352) During stage three, parents can reinforce _____ by giving freedom to play, to ask questions, to use imagination, and to choose activities. If children learn to feel that their play, ideas, or questions are silly or stupid, they also learn to feel guilty and ashamed.
9. (p. 353) During the next life phase, _____ (years 6-12), the major tasks surround introduction to school.
10. (p. 353) During stage four, 6-12 years, the major crisis involves the development of _____ vs. _____. The first develops if the child is praised for building, painting, and other productive activities. The second develops if a child's accomplishments are regarded as messy, childish, or inadequate.
11. (p. 353) Adolescence is the next major life stage (12-18 years). During stage five, Erikson believes that _____ vs. _____ is the major developmental task facing the individual.
12. (p. 352) The adolescent must build a consistent _____ out of self-perceptions and relationships with others. Failure to do so causes

_____ which may cause the person to seek identity by emulating musicians, athletes, etc.

13. (p. 354) The next life cycle, early adulthood, occurs between ages _____ to _____ years. Stage six occurs during this period and involves the psychological crisis of developing _____ or _____.
14. (p. 354) Many researchers now believe that personality development continues until at least age _____. This is included in the next life phase, _____, which encompasses ages _____ to _____ years.
15. (p. 354) During stage seven, _____ vs. _____ is the major decision point. This period involves broadening one's concern and energies to include the welfare of others and society as a whole.
16. (p. 355) During the final life phase, old age, Erikson sees _____ vs. _____ as the psychological crisis that must be resolved.
17. (p. 355) According to Erikson, the previous seven stages of life become the basis for successful aging. The person who has lived richly and responsibly develops a sense of _____ which allows aging and death to be faced with dignity. However, if previous life events are viewed with regret, the elderly person falls into despair with a feeling that life has been a series of missed opportunities.
18. (p. 355) Although Erikson has not specifically discussed it, others believe that preparing for death may be an internal psychological process. Approaching death causes aged individuals to undertake a _____ during which vivid memories of earlier events bring to the surface unresolved questions, conflicts, and issues.
19. (p. 356) In considering the problems of childhood, perhaps the first major development starts with birth. The French obstetrician _____ advocates a system of birth that purportedly makes it pleasant for both mother and baby. It involves delivery in a silent, dimly lit room. Immediately after birth the baby is placed on its mother's stomach and gently massaged, then the umbilical cord is cut and the baby bathed in warm water. However, many obstetricians have been skeptical of this method.
20. (p. 357) While Leboyer claims that children delivered by "gentle" birth are happier, more relaxed, and more emotionally stable, there is a better case for the value of altering procedures for handling babies _____ after _____.
21. (p. 357) Studies by Marshall Klaus and John Kennel indicate that mother-child pairs who spend extra time together immediately after birth form a stronger _____ that affects the behavior of each.

22. (p. 358) Infants given more contact with mothers gained more _____ and had fewer _____ during their first year. Also, mothers directed more _____, _____, and _____ to the infants.
23. (p. 358) During a two-year follow-up, these mothers spoke to their children in _____, asked more _____, used more advanced _____, and made fewer _____.
24. (p. 358) At five years after birth, the extended-contact children had higher _____ and higher scores on _____.
25. (p. 358) Questions can also be raised about Leboyer's approach on psychological grounds. Leboyer's assumption seems to be that _____ is bad, but a moderate amount during infancy may actually be beneficial.
26. (p. 358) Baby rats subjected to handling, mild electric shocks, or frightening rides in a bottle washing machine opened their _____ sooner, gained _____ faster and grew _____ than their nonstressed littermates. These effects are apparently due to stimulation of the body's _____ system.
27. (p. 358) Cross-cultural studies reveal that children subjected to stressful rituals like ear piercing, etc., average over _____ inches taller as adults than those who escaped such rituals.
28. (p. 359) Researchers Chess, Thomas, and Birch have discussed several problems which may occur during childhood that can be stressful. One of these, _____, is a common problem. All children experience occasional wakefulness, frightening dreams, or a desire to get into the parents' bed.
29. (p. 359) _____ of the dark, dogs, school, or of a particular room or person are also common.
30. (p. 359) Most children will be _____ at times, allowing themselves to be bullied by other children. There may also be temporary periods of _____ when nothing pleases the child.
31. (p. 359) Children also normally display periods of _____ marked by tantrums or refusal to do anything requested. This trait is particularly characteristic of _____-year-olds and may be a sign of growing independence.
32. (p. 359) Another normal problem is _____, in which the child refuses to leave the side of his mother. This is especially common among _____-year-olds.
33. (p. 359) Development does not always advance smoothly. Every child will show occasional _____ or _____ to more infantile behavior.

34. (p. 359) Two additional problems common to the elementary school years are _____ and _____.
35. (p. 359) Severe emotional disturbances do affect children. A report of the President's Joint Commission on the Mental Health of Children estimated that _____ percent of our children are psychotic; about _____ or _____ percent are severely disturbed; and an additional _____ to _____ percent are neurotic.
36. (p. 359) Emotional difficulties may develop during _____ - _____ or over bowel and bladder habits. The two most common problems are _____ (lack of bladder control) and _____ (lack of bowel control).
37. (p. 359) Feeding disturbances is another area of emotional difficulty. Overeating may be encouraged by an _____ - _____ mother who compensates for feeling unloved by showering the child with "love" in the form of food.
38. (p. 359) Serious cases of undereating are called _____ (nervous loss of appetite). It is most common among _____, where it may represent conflict about developing sexual maturity.
39. (p. 360) As a childhood problem, undereating appears related to the fact that eating is a _____ that can become an arena for conflicts.
40. (p. 360) Another childhood problem associated with eating difficulties is a condition called _____, during which children go through a period of intense appetite and eat or chew on all sorts of inedible substances.
41. (p. 360) Speech disturbances may be another source of emotional difficulties. The two most common speech problems are _____ and _____.
42. (p. 360) Stuttering was once held to be primarily a psychological disturbance; it is now believed to be more _____ in origin. For example, it is _____ times more common in males than females, and there seem to be hereditary factors underlying its occurrence.
43. (p. 360) A child may experience difficulties in learning for many reasons. One of the most significant problems is _____, a condition in which the child is constantly in motion and cannot concentrate.
44. (p. 360) The most widely accepted theory of hyperactivity states that it is the result of _____, abbreviated _____.
45. (p. 360) When there does seem to be a definite physical cause for hyperactivity, medications such as _____ and _____ lengthen the child's attention span and reduce overactivity.

46. (p. 360) A number of scientists have objected to the blanket use of powerful stimulants in the treatment of hyperactivity, since as many as _____ percent of the nation's children between the ages of five and twelve are so treated.
47. (p. 361) Childhood _____ is a problem which affects one in 2,500 children, boys _____ times more often than girls.
48. (p. 361) In addition to extreme _____, the autistic child may throw gigantic temper tantrums including self-destructive behavior. Language learning is usually so retarded that the child is _____.
49. (p. 361) If they speak at all, they often parrot back everything said, a reaction known as _____. Autistic children also engage in frequent repetitive actions like rocking, flapping their arms, or waving their fingers in front of their eyes.
50. (p. 361) Additionally, the child may show no response to an extremely loud noise (_____) or may spend hours watching a water faucet drip (_____).
51. (p. 361) Some experts have laid the blame on parents who were too _____ or _____ in the child during infancy. However, observations suggest that some constitutional abnormality may be involved.
52. (p. 362) An approach called _____, essentially the application of learning principles to human problems, has been remarkably successful in combating autism when treatment is begun early.
53. (p. 362) Teaching Billy (the autistic child described in the chapter preview) to talk began with his learning to blow out a _____. Next he was rewarded for _____ sounds. Notice that this is basically an example of _____.
54. (p. 362) Ivar Lovaas and others have found that one of the most disturbing autistic behaviors is the easiest to control. Following actions like head-banging by _____ can bring a swift end to self-destructive behavior.
55. (p. 363) Recent research by Roger Gould has now identified several important substages in adult development not discussed by Erikson. According to Gould, the age group 16-18 is marked by a struggle to escape from _____.
56. (p. 363) By ages 18-22, leaving the _____ is usually associated with building new friendships with other adults who serve as substitutes.
57. (p. 363) Building a workable life summarizes ages 22-28 during which the two dominant activities are striving for _____ and reaching out to _____.

58. (p. 363) By age 30 many people experience a major life crisis, questioning what life is all about. _____ are particularly vulnerable during this time of dissatisfaction. _____ and _____ are common symptoms of this mid-life cycle.
59. (p. 363) People in the age 35-43 stage of life are typically beginning to become more aware of the reality of _____. Attempts to succeed at a career, or to achieve one's life goals become more _____.
60. (p. 363) The urgency of the previous stage gives way to a calmer acceptance of one's fate in the _____ to _____ year age range. The predominant feeling is that former decisions can be lived with.
61. (p. 363) After age _____, a noticeable mellowing occurs. Emphasis is placed on sharing day-to-day joys and sorrows.
62. (p. 364) Psychologist Daniel Levinson has carried out an in-depth study of lives from early adulthood to later maturity. He discovered three different patterns of adjustment during the midlife crisis of 37 to 41. Roughly _____ of the people studied defined this period as a last chance to achieve their life goals, often specified as a key event.
63. (p. 364) A second pattern involved serious _____, sometimes related to obvious _____ or to choice of a dead-end job or life style.
64. (p. 364) Levinson characterized the third pattern as "_____" In this case the person had earlier established a seriously flawed life structure, then effected dramatic changes in work, goals, and relationships.
65. (p. 364) After the "deadline decade" of midlife, declining strength, physical vigor, and attractiveness make it clear to individuals that more than half of their time is gone. For most women during this era, _____ represents the first real encounter with aging.
66. (p. 364) In menopause, the level of the hormone _____ drops. This ends monthly menstruation and may also cause drastic changes in mood or appearance and the occurrence of physical symptoms such as "_____."
67. (p. 364) While many women experience anxiety, irritability, or depression at this time, most postmenopausal women feel that menopause was not as bad as they expected and that their anxiety came from _____ what to expect.
68. (p. 364) Males do not undergo any abrupt physical change directly comparable to menopause, but often experience _____ or significant physiological change with symptoms similar to those experienced by women in menopause.
69. (p. 365) Currently there are an estimated _____ Americans over the age of 65; by the year 2020, there will be some _____ people 65 and older, or one out of every five people.

70. (p. 365) _____ is a gradual process that begins early in life. Peak functioning in most physical capacities reaches a maximum by about _____ to _____ years of age and then gradually declines.
71. (p. 365) For those who are still young, the prospect of physical aging may be the largest threat of old age. However, only about _____ percent of the elderly are in nursing homes. Many misconceptions about elderly people still exist.
72. (p. 365) As a _____ (one who studies aging), Dr. Alex Comfort estimates that only _____ percent of the disabilities of old people are medical.
73. (p. 365) Comfort's view of aging is backed up by the studies of the intellectual capacities of aging individuals. There is little _____ in intelligence test scores associated with aging.
74. (p. 365) Although "_____ " abilities (those requiring speed or rapid learning) may decline, "_____ " abilities such as vocabulary and accumulated knowledge actually improve at least into the seventies.
75. (p. 366) Two principal theories have been proposed to explain successful adjustment to the physical and social changes that accompany aging. The _____ of aging assumes that it is normal and desirable that people will withdraw from society as they age.
76. (p. 367) The second view, _____, predicts that people who remain active physically, mentally, and socially will adjust better to aging.
77. (p. 367) The majority of studies conducted on aging support the _____, although successful aging probably requires a combination of activity and disengagement.
78. (p. 367) Another major factor in successful aging is the person's _____ - _____. There is a difference between the "young-old" and the "old-old" perceptions the individual accepts for oneself.
79. (p. 367) _____ refers to discrimination or prejudice on the basis of age. While this applies to people of all ages, it probably has a greater negative impact on older individuals.
80. (p. 367) Another facet of ageism is _____ of the aged. Popular images, especially as seen in movies and television, help perpetuate the myths underlying ageism.
81. (p. 367) Bernice Neugarten conducted a study of 200 people over 70 years of age. She found that _____ percent were satisfied with their lives after retirement. She also found that most prefer to live apart from their children and few are placed in mental hospitals because of mental senility or uncaring children.

82. (p. 370) As a single problem area in development, the question of how to be a good parent has probably attracted more attention than any other. Much of the answer can be found in _____ and _____.
83. (p. 370) Haim Ginott approaches discipline with a special form of _____. The child has room to move about freely within well-defined limits consistently applied.
84. (p. 371) Parents tend to base discipline on one or more of the following techniques: _____, _____ of _____, or _____.
85. (p. 371) Power-oriented techniques are associated with _____, _____ of parents, and a lack of spontaneity and warmth. Severely punished children also tend to be _____, _____, and _____.
86. (p. 371) Withdrawal of love produces children who tend to be _____ - _____. As a side-effect they are also frequently _____, _____, and _____ on adults for approval.
87. (p. 371) Coopersmith has found that _____ - _____ was related to the use of physical punishment or withholding of love. _____ was related to management techniques which emphasized strict and consistent discipline coupled with high parental interest and concern for the child.
88. (p. 372) Dr. Haim Ginott has suggested that it is essential to make a distinction between a child's _____ and a child's _____.
89. (p. 372) Ginott encourages parents to teach their children that all _____ are appropriate, only actions are subject to disapproval.
90. (p. 372) Dr. Thomas Gordon, who has developed a program called _____ (PET), believes that parents should send _____ messages instead of _____ messages.
91. (p. 374) A _____ is basically a hospital for the terminally ill, modeled after a pioneering English facility. The development of such facilities is one of the reactions to the fact that more than 70 percent of the people in our country die outside their homes, much the reverse of how things were at the beginning of this century.
92. (p. 374) A hospice is different from a hospital in several ways. For one, there are lots of _____ present. Secondly, the _____ is pleasant, informal, and has a sense of continued living. And thirdly, the patient is allowed _____ of _____.
93. (p. 374) The "right to die" concept has been most recently focused by the Karen Ann Quinlan case. In most states it is illegal to remove life-supporting

equipment as was done in her case. One solution gaining support is the _____ made out when the person is healthy saying that, should the person become irreversibly ill, they do not want life sustained by medical machines or heroic measures.

94. (p. 375) The right to die won for Karen Quinlan by her parents may be thought of as _____ in which death is allowed to occur but is not actively caused.
95. (p. 375) In _____ steps would be taken at a patient's request to deliberately hasten death, perhaps by administering drugs that induce death painlessly.
96. (p. 375) _____ involves freezing a person's body upon death. The idea is to keep them frozen until medical science perfects ways to thaw, restore, and revive the person. However, freezing does serious damage to the body and would severely cripple the brain.

SELF TEST

- There are certain broad similarities in the universal life stages of each individual. Each represents a milestone in physical maturation and psychological development, and each confronts a person with a new set of
 - developmental tasks.
 - life enhancements.
 - developmental modifications.
 - psychosocial outcomes.
- Match the developmental stage with the appropriate life crisis indicated by Erikson.

| | | |
|---------------------------|-------|---------------------------------|
| 1. Stage 1 (1 yr.) | _____ | a. integrity vs. despair |
| 2. Stage 2 (1-3 yrs.) | _____ | b. industry vs. inferiority |
| 3. Stage 3 (3-5 yrs.) | _____ | c. initiative vs. guilt |
| 4. Stage 4 (5-12 yrs.) | _____ | d. generativity vs. stagnation |
| 5. Stage 5 (12-18 yrs.) | _____ | e. identity vs. role confusion |
| 6. Stage 6 (18-35 yrs.) | _____ | f. trust vs. mistrust |
| 7. Stage 7 (35-60 yrs.) | _____ | g. autonomy vs. shame and doubt |
| 8. Stage 8 (over 60 yrs.) | _____ | h. intimacy vs. isolation |
- During the first year of life, a favorable outcome to the life crisis discussed by Erikson would be
 - faith in the environment and others.
 - ability to begin one's own activities.
 - feelings of self-control and adequacy.
 - ability to form bonds of love and friendship with others.
- A favorable outcome to the life crisis of adolescence would include
 - faith in the environment and others.
 - concern for family, society, and future generations.
 - an integrated image of oneself as a unique person.
 - confidence in productive skills, learning how to work.

5. If the psychosocial dilemma of middle adulthood is favorably resolved, the outcome is a (an)
 - a. concern for family, society, and future generations.
 - b. confidence in productive skills, learning how to work.
 - c. feelings of self-control and adequacy.
 - d. ability to form bonds of love and friendship with others.
6. The obstetrician who advocates pleasant, nonstressful birth is
 - a. Gordon.
 - b. Leboyer.
 - c. Gould.
 - d. Comfort.
7. True-False. Stress during childhood should always be avoided since the infant has little ability to deal with it at that age.
8. Children normally display periods of general negativism marked by tantrums and refusal to do anything requested. This trait is particularly characteristic of which age?
 - a. two years old
 - b. four years old
 - c. six years old
 - d. eight years old
9. Clinging, in which the child refuses to leave the side of the mother, is a normal childhood difficulty. It is especially common at which age?
 - a. three years old
 - b. five years old
 - c. seven years old
 - d. nine years old
10. Of the following, which are considered normal reactions to the unavoidable stress of growing up? (Indicate by circling.)

| | |
|--|--|
| a. sleep disturbances | e. enuresis |
| b. sibling rivalry | f. rebellion |
| c. autism | g. hyperactivity |
| d. specific fears of the dark, school, etc. | h. reversals to more infantile behaviors |
11. One out of every _____ children has a serious emotional problem.
 - a. 5
 - b. 7
 - c. 10
 - d. 12
12. A nervous loss of appetite is referred to as
 - a. encopresis.
 - b. anorexia nervosa.
 - c. enuresis.
 - d. sensory spin-out.

13. The most widely accepted theory of hyperactivity states that it is the result of
 - a. poor diet.
 - b. lack of parental discipline.
 - c. minimal brain dysfunction.
 - d. environmental factors such as lighting.
14. Of the following, which characterizes childhood autism? (Indicate by circling.)

| | |
|----------------------------------|-------------------------------------|
| a. extreme isolation | f. sensory spin-out |
| b. minimal brain dysfunction | g. hyperactivity |
| c. retarded language development | h. anorexia nervosa |
| d. sleep disturbances | i. repetitive actions |
| e. sensory blocking | j. detached or uninterested parents |
15. Which of the following is a type of eating disorder in which inedible objects are chewed or eaten?
 - a. anorexia nervosa
 - b. enuresis
 - c. autism
 - d. pica
16. Only about _____ percent of the disability of old people is medical.
 - a. 5
 - b. 10
 - c. 20
 - d. 25
17. True-False. Only about five percent of the elderly are placed in nursing homes.
18. Which of the following parental styles results in children who tend to be self-disciplined and frequently anxious, insecure, and dependent on adults for approval?
 - a. power assertion
 - b. child management
 - c. withdrawal of love
 - d. power oriented
19. True-False. Severe self-destructive behaviors associated with autism are often the easiest to control.
20. An expert on the problems of aging and the aged is called a
 - a. thanatologist.
 - b. gerontologist.
 - c. obstetrician.
 - d. pediatrician.
21. True-False. Currently there are over 21 million Americans over the age of 65.
22. True-False. Passive euthanasia involves passively freezing a body immediately after death.
23. True-False. Overeating during childhood may be encouraged by an overprotective mother who compensates for feeling unloved.

24. Which of the following postulates that people who remain psychologically, physically, and socially involved are better able to adjust to the aging process?
 - a. activation-arousal theory
 - b. engagement theory
 - c. disengagement theory
 - d. activity theory
25. Which of the following is a behavior disturbance in which spoken words are simply repeated in a parroting, stereotyped manner?
 - a. encopresis
 - b. stuttering
 - c. echolalia
 - d. glossalalia
26. True-False. Although there may be declines in crystallized intelligence with aging, there is an improvement in fluid intelligence.
27. True-False. Ageism is the theory of development which postulates different psychosocial crises for each stage of development.

ESSAY QUESTIONS

1. What are the most common personality changes and psychological developments of adulthood as discussed by Roger Gould and Erik Erikson?
2. Discuss the views of Coopersmith, Ginott, and Gordon on how to be a good parent.
3. What are some of the current trends and approaches in our views of aging and death?



Intelligence 17

TERMS AND CONCEPTS

idiot savant
operational definition
reliability
 test-retest
 split-half
 equivalent forms
validity
 face
 criterion
Stanford-Binet Intelligence Scale
mental age
chronological age
intelligence quotient (IQ)
Wechsler Adult Intelligence Scale (WAIS)

Wechsler Intelligence Scale for Children (WISC)
Army Alpha
MGM children (mentally gifted minors)
mental retardation
phenylketonuria (PKU)
microcephaly
hydrocephaly
cretinism
mongolism (Down's Syndrome)
eugenics
fraternal twins
identical twins
culture-fair tests

IMPORTANT INDIVIDUALS

Alfred Binet
David Wechsler
Lewis Terman
Robert Zajonc
Adrian Dove

Arthur Jensen
William Shockley
David McClelland
Robert Glaser
Cyril Burt

PROGRAMMED REVIEW

1. (p. 377) A person of sub-normal intelligence who shows highly developed mental abilities in one or more very limited areas is known as an _____.

2. (p. 378) Perhaps the first person to use an "intelligence" test was _____, whose approach gave rise to modern intelligence tests.
3. (p. 378) A general description of intelligence given by David Wechsler defines it as the global capacity of the individual to act _____, to think _____, and to deal effectively with the _____.
4. (p. 378) Beyond this definition, intelligence is usually defined using an _____.
5. (p. 378) An operational definition specifies the _____ used to measure the concept. In this case an operational definition of intelligence is what an _____ measures.
6. (p. 379) For a test to be _____ it must yield the same score, or close to the same score, each time it is administered to the same individual.
7. (p. 379) One way to assess reliability is to administer the test to a large group of people and then test them again at a later date. This method is known as _____ reliability.
8. (p. 379) Reliability is sometimes determined by comparing the score on one-half of the test items to the score on the other half. This method is known as _____ reliability.
9. (p. 379) Also, if two versions of the test were given, we could compare scores on one to scores on the other for each person. This method is known as _____ reliability.
10. (p. 379) A test has _____ when it measures what it claims to measure. This can be established in various ways.
11. (p. 379) A test should include items that look like they are related to what is supposedly being measured. This refers to _____ validity.
12. (p. 379) A better way of determining validity is to compare test scores to actual performance. This is known as _____ validity.
13. (p. 380) One example of intelligence tests is the _____ - _____ which uses a set of increasingly more difficult items to categorize age groups.
14. (p. 380) The age-ranked questions of the Stanford-Binet allow a person's _____ to be determined.
15. (p. 380) Mental age gives a good indication of one's actual abilities but says nothing about whether overall intelligence is high or low. To know the meaning of mental age, one must also consider _____.

16. (p. 380) Using these two age values, an _____ or _____
_____ can be determined. It is defined as _____
_____ divided by _____ multiplied by 100.
17. (p. 380) The IQ equals 100 when $MA = CA$, thus 100 is defined as _____
intelligence.
18. (p. 380) Although an IQ of 100 is the mathematical average (or mean) for such
scores, average intelligence is usually defined as any score from
_____ to _____.
19. (p. 381) IQ scores do not become dependable until age _____, after which
they correspond quite closely to adult IQ.
20. (p. 381) The average change in IQ on retesting is approximately _____
points in either direction, however changes of 15 points or more are not
uncommon during intellectual development.
21. (p. 381) Studies of IQ have shown a gradual increase in intellectual ability until
somewhere between the ages of _____ and _____.
22. (p. 381) Other studies have shown no changes due to aging. More recent findings
suggest that only certain kinds of intellectual abilities are affected by
aging. When _____ or _____ is emphasized,
there is little decline until advanced age.
23. (p. 381) On the other hand, test items requiring _____, rapid
_____, or perceptual _____ show earlier losses and a rapid
decline after middle age.
24. (p. 381) An intriguing link between IQ and aging centers around the observation
that _____ may be signalled by significant changes
in brain function. This _____ in IQ can be measured
even when the person appears to be in good health.
25. (p. 381) A widely used alternative to the Stanford-Binet is the _____
_____ abbreviated _____.
26. (p. 381) This test has a form adapted for use with children called the _____
_____ abbreviated _____.
27. (p. 381) The Stanford-Binet only gives an overall IQ, whereas both the WISC and
WAIS rate _____ intelligence in addition to verbal intelligence.
28. (p. 381) Both the Stanford-Binet and the Wechsler tests are _____
_____ which must be administered by a specially
trained tester.
29. (p. 381) _____ are designed for use with large
groups of people. The first group intelligence test was the _____

_____ developed for use in classifying World War I military inductees.

30. (p. 381) Other examples include the _____ (or _____), the _____ (or _____), and the _____ (or _____).
31. (p. 383) The distribution of IQs in the population approximates a _____ curve in which the majority of scores fall close to the _____, and relatively few at the _____.
32. (p. 383) It seems safe to assume that men and women do not differ in _____ intelligence. However, on the WAIS women do better on _____, _____, and _____ learning, whereas men are best in _____ of _____ and _____.
33. (p. 384) The correlation between IQ and school grades is _____.
34. (p. 384) Furthermore, the average IQ of high school graduates is approximately _____; college graduates average _____; and for Ph.D.s it averages _____.
35. (p. 384) Persons holding _____ positions average much higher IQs than those in lower status occupational settings. However, there is considerable range of IQs in all occupations.
36. (p. 385) A person scoring an IQ of 140 or greater is usually considered at least _____ and sometimes _____. _____ has investigated some 1,500 children within this high IQ range.
37. (p. 385) Terman's study makes it clear that the very bright tend to be _____ in many ways and demonstrates the inaccuracy of many misconceptions about the "gifted."
38. (p. 386) An unusually bright child can be characterized by many behaviors other than straight academic intelligence. However, having a high IQ is not without its problems. Boredom with classes and classmates can lead to behavioral problems. In recognition of these problems, many school systems now provide special programs and classes for "MGM" children (_____).
39. (p. 386) An individual with intellectual abilities significantly below average is termed _____.
40. (p. 386) An IQ of _____ or below has traditionally been the dividing line between normal intelligence and retardation.
41. (p. 386) Total care is only necessary for the _____ retarded. The _____ and _____ retarded are capable of mastering basic language skills and routine self-help skills.

42. (p. 386) The _____ retarded benefit from carefully structured and supervised education. They are capable of living alone and may marry.
43. (p. 386) About _____ percent of all cases of mental retardation are organic, or related to known physical disorders.
44. (p. 386) These can be traced to one or more of the following conditions:
(1) _____ (such as lack of oxygen); (2) _____
_____ caused by maternal drug abuse, disease or infection
contracted by the mother before birth, or by the child shortly after birth;
(3) _____; and (4) _____.
45. (p. 386) In the majority of cases of retardation (75%), no known biological problem can be identified. One such type, _____, as it is called, occurs most often in very low income or impoverished households where nutrition, early stimulation, medical care, and emotional support are inadequate.
46. (p. 387) There are several distinctive forms of retardation, including _____ or _____, which results from the build-up of phenylpyruvic acid. This can now be detected by medical testing during the first _____ of life and can be controlled by special _____.
47. (p. 387) The _____ suffers a rare abnormality in which the skull is extremely small or fails to grow, thus forcing the brain to develop in a severely limited space.
48. (p. 387) _____ is caused by excess production of cerebrospinal fluid within the brain which forces the brain against the skull, grossly enlarging the head and damaging brain tissue.
49. (p. 387) _____ develops in infancy due to insufficient secretion of _____ hormone.
50. (p. 387) _____ is characterized by almond-shaped, slanted eyes and an overly-large, protruding tongue. It is known that these individuals (also called _____) have an extra _____.
51. (p. 388) The age of the mother seems to be a factor in cases of mongolism. Mothers in their early twenties have about one chance in _____ of giving birth to a mongoloid child. After age _____, the odds increase to approximately one in forty-six.
52. (p. 388) Recent research has also linked age of the _____ to an increased risk of mongolism.
53. (p. 389) Selective breeding for desirable characteristics is referred to as _____.
54. (p. 388) This is demonstrated in a classic study of genetic factors and learning ability conducted by Tryon, who managed to breed separate strains of _____ and _____ rats.

55. (p. 389) In assessing the relative importance of heredity and environment on the development of intelligence, studies have looked at the similarity in IQ between relatives of varying closeness of genetic association. It is typically found that the similarity grows in _____ to the closeness of genetic association.
56. (p. 389) For example, _____ develop from a single egg and therefore have identical heredity. When reared in the same home environment, virtually identical IQs result. But when reared apart, the correlation drops from _____ to _____ showing the effects of less similar environments.
57. (p. 389) _____ result when two separate eggs are fertilized at the same time. Thus, they are no more alike than other siblings and show about the same degree of correspondence in IQ scores.
58. (p. 389) Some psychologists attribute as much as _____ percent of intelligence to the effects of heredity. However, many now place the proportion as low as 45 percent and some even question this figure.
59. (p. 389) Environment is also important. One study showed that when 25 children who were considered mentally retarded were transferred to a more stimulating environment, the result was an average gain of _____ IQ points.
60. (p. 389) In that same study, a second group of initially less retarded children who remained in the orphanage lost an average of _____ IQ points.
61. (p. 389) In one French study, 32 children adopted by families of primarily higher education and socioeconomic status were compared with their siblings who remained with their biological parents (primarily of low educational level and working in "non-professional" jobs). The school failure rates and the average IQ scores corresponded _____ to those typical of children from the respective backgrounds. This is another example of the strong environmental effects involved in determining IQ.
62. (p. 390) Robert Zajonc has reported that IQ _____ as family size grows. However, the average IQ for the oldest of two children is only ten points higher than the average for the last of nine children.
63. (p. 393) There are many problems involved in the use and interpretation of IQ tests. One such problem is the language that is used. It tends to be biased in favor of white, middle-class backgrounds. In recognition of this problem, some psychologists are trying to develop _____ tests that will not disadvantage certain groups.
64. (p. 394) This issue has most strongly been raised regarding the IQs of blacks. There has been much debate as to whether the fact that blacks perform poorer on IQ tests than whites should be attributed to environmental or hereditary factors. Most psychologists do not support the genetic

emphasis espoused by Arthur Jensen and William Shockley. Instead they point to studies such as those investigating the IQs of black children raised in white families. These children had IQ scores averaging _____, which is comparable to the national average for white children. This emphasizes the cultural and environmental factors involved.

65. (p. 394) Criticism of intelligence tests used in public schools has also become an issue. David McClelland compared a group of college students with straight A's to another group with poor grades; he found no differences in later _____.
66. (p. 395) In considering the positive and negative aspects of standardized tests such as the Scholastic Aptitude Test, Robert Glaser points out that they are now used primarily to select _____ rather than to adapt instruction to the strengths, weaknesses, and needs of each student.
67. (p. 395) In considering the use of IQ tests, it is wise for the individual to remember that _____ is not _____ (it is only an index). If you change the test, you change the score.
68. (p. 395) Some psychologists are seeking ways to teach necessary intellectual skills to all children. For example, one experiment divided 40 children from extremely disadvantaged families into two groups. Experimental subjects received a wide variety of stimulation and special attention, while control subjects did not. When tested at age $5\frac{1}{2}$, the average IQ for the control group was _____, but the experimental group showed an encouraging average of _____.
69. (p. 396) The hereditarian view of intelligence has recently been weakened by the controversy surrounding twin studies data reported by _____.
70. (p. 396) Based on inquiries by other established psychologists, it appears that Burt may have presented false data and may not have actually completed any twin studies at all. Other investigators have duplicated most of his work, but not a particularly crucial set of data related to the correlation of identical twins raised apart. The discovery of Burt's fraud presents many questions, one important one being the usefulness of the _____ system of education used in Britain which permanently assigns children to fixed educational levels based on a test given at age 11.

SELF TEST

1. When we administer a test to a large group of people and then retest them at a later date, we are investigating
- a. split-half reliability.
 - b. equivalent forms reliability.
 - c. test-retest reliability.
 - d. construct validity.

2. Intelligence is usually defined using a (an) _____ definition.
 - a. subjective
 - b. physiological
 - c. mathematical
 - d. operational
3. The IQ test which uses a set of increasingly more difficult items to categorize age groups is the
 - a. Wechsler Adult Intelligence Scale.
 - b. Stanford-Binet Intelligence Scale.
 - c. Wechsler Intelligence Scale for Children.
 - d. MGM Scale.
4. Of the following, which are associated with the Stanford-Binet Intelligence Scale? (Indicate by circling.)

| | |
|----------------------|--------------------------|
| a. chronological age | d. separate subscales |
| b. morphological age | e. overall IQ score |
| c. mental age | f. intelligence quotient |
5. A test has _____ when it measures what it claims to measure.
 - a. split-half reliability
 - b. validity
 - c. equivalent form reliability
 - d. culture fairness
6. When we compare test scores to actual performance, we are measuring
 - a. face validity.
 - b. test-retest reliability.
 - c. split-half reliability.
 - d. criterion validity.
7. True-False. Providing extra stimulation and special teaching attention can raise the IQ of young children above that of children not receiving such special treatment.
8. Only about _____ percent of mental retardation is attributable to organic causes or related known physical disorders.
 - a. 10
 - b. 25
 - c. 40
 - d. 50
9. True-False. Intelligence tests that are not biased toward any race of people are called culture-fair tests.
10. The hereditarian view of intelligence has recently been weakened by the controversy surrounding faked twin studies data reported by
 - a. Cyril Burt.
 - b. David McClelland.
 - c. Robert Zajonc.
 - d. Arthur Jensen.

11. Intellectually gifted children with IQs of 140 or more were the subject of an extensive study conducted by _____ that dispelled many myths about the mentally gifted.
 - a. Binet
 - b. Wechsler
 - c. Terman
 - d. Jenkins
12. The genetically inherited lack of an important bodily enzyme which causes the build-up of a destructive chemical defines a condition known as
 - a. PKU.
 - b. microcephaly.
 - c. cretinism.
 - d. mongolism.
13. _____ is a form of retardation that develops in infancy due to the insufficient secretion of thyroid hormone.
 - a. PKU
 - b. Microcephaly
 - c. Cretinism
 - d. Mongolism
14. Selective breeding for desirable characteristics is referred to as
 - a. euthenasia.
 - b. eugenics.
 - c. genetics.
 - d. Army Alpha.
15. _____ is characterized by individuals with an extra chromosome who have almond-shaped, slanted eyes and overly-large tongues.
 - a. Cretinism
 - b. Mongolism
 - c. PKU
 - d. Hydrocephaly
16. Indicate (by circling) who of the following has taken an extreme hereditary view in the nature vs. nurture controversy of intelligence.

| | |
|---------------------|------------------|
| a. Adrian Dove | e. Lewis Terman |
| b. Cyril Burt | f. Arthur Jensen |
| c. William Shockley | g. Robert Glaser |
| d. Alfred Binet | h. Robert Zajonc |
17. True-False. Women tend to excel on IQ test items that require arithmetic reasoning, verbal ability, and rote learning.
18. True-False. Fraternal twins develop from a single egg, therefore they have nearly identical IQs.
19. What IQ score has traditionally been used as the dividing line between retardation and normal intelligence?

- a. 60
 - b. 70
 - c. 80
 - d. 90
20. True-False. Intelligence is exclusively determined by the environment.
21. True-False. Terman's study of gifted children found that the very bright are usually physically weaker.

ESSAY QUESTIONS

1. Discuss the problems (for example, cultural bias) involved in the use and interpretation of IQ tests.
2. Discuss the evidence indicating the relative importance of heredity and environment in determining IQ.
3. Describe the various disorders usually classified under mental retardation. What are the major causes of mental retardation?

Personality: Traits, Types, and Testing 18

TERMS AND CONCEPTS

hypothetical construct
personality
character
temperament
personality types
introvert
extrovert
constitutional theory
body types (somatotype)
endomorph
mesomorph
ectomorph
viscerotonia
somatotonia
cerebrotonia
traits
trait theorist
common traits
individual traits
nomothetic approach
idiographic approach
cardinal traits
central traits
secondary traits
surface traits
clusters

source traits
factor analysis
Sixteen Personality Factor Questionnaire
(16 PF)
trait profile
ordinal position
interview
 structured
 unstructured
halo effect
direct observation
rating scales
situational testing
personality questionnaires
Minnesota Multiphasic Personality Inventory
(MMPI)
hypochondriasis
psychasthenia
hypomania
MMPI profile
projective tests
Rorschach Inkblot Test
Thematic Apperception Test (TAT)
sudden murderers
androgyny
Bem Sex Role Inventory (BSRI)

IMPORTANT INDIVIDUALS

Carl Jung
William Sheldon
Gordon Allport
Raymond Cattell

Walter Toman
Hermann Rorschach
Henry Murray
Frank McMahon
Sandra Bem

PROGRAMMED REVIEW

1. (p. 399) A hypothetical construct is an explanatory concept that is not directly observable. Personality is such a term.
2. (p. 399) Most psychologists regard personality as one's unique and underlying behavior patterns.
3. (p. 399) Personality, then, relates to the consistency in what a person is, has been, and will become. It also refers to the singular combination of talents, attitudes, values, hopes, loves, hates, and habits that mark each person as a unique individual.
4. (p. 399) Many people confuse personality with character, which is personality evaluated. It is determined by the judging individual and the society as a whole.
5. (p. 400) Personality can also be distinguished from temperament, which is the raw material from which personality is formed. It refers to the hereditary aspects of one's emotional nature: sensitivity, etc.
6. (p. 400) The study of personality types is a natural extension of interest in personality. However, too frequently, they represent an oversimplification of personality. Consider the idea, first proposed by Carl Jung, that a person is either an introvert or an extrovert. These "titles" do not always fit the real personality. It is perhaps more desirable to rate degrees of personality traits.
7. (p. 401) Attempts have often been made to relate body type and personality. The famous physician, Hippocrates, proposed that an abundance of certain "humors" or fluids in the body affects personality.
8. (p. 401) Hippocrates believed, for example, that a person with an excess of black bile is prone to sadness and depression. Courage and vitality were linked to the blood; anger and irritability to yellow bile; and listlessness to phlegm.
9. (p. 401) A more recent attempt to relate body type and personality is the constitutional theory of William Sheldon, who carefully analyzed body dimensions of thousands of male college students and concluded that physique can be described as a combination of three basic components.

10. (p. 401) One of these components, endomorphs, is characterized by a fat, soft, round body structure.
11. (p. 401) Mesomorphs is marked by a robust development of muscles, bones, and ligaments, which gives the body a hard, muscular, or angular appearance.
12. (p. 401) Underdeveloped muscles and bones characterize the ectomorphs. They are flat-chested, thin, fragile, and linear.
13. (p. 401) The average person's somatotype (body type) is a mixture of all three components. A number from one to seven is assigned to each dimension, with the average person rated around four on each.
14. (p. 402) Sheldon compared ratings on 60 personality characteristics with the three body types. Three personality types emerged.
15. (p. 402) Viscerotonia combines sociability, tolerance, and goodwill, with a love of eating, sleeping, and physical comfort.
16. (p. 402) Somatotonia is characterized by assertiveness, boldness, energy, aggression, a callous attitude toward the feelings of others, and a love of physical exercise.
17. (p. 402) The cerebrotonic individual is self-conscious, shy, sensitive, nervous, and has a need for privacy and intellectual stimulation.
18. (p. 402) Sheldon found a strong association between endomorphy-viscerotonia, mesomorphy-somatotonia, and ectomorphy-cerebrotonia. However, many have criticized Sheldon for allowing the possibility of influence to enter his research methods.
19. (p. 402) Although more recent research partially supports the body-personality relationships reported by Sheldon, the associations are usually quite weak. It seems fair to conclude that body type plays a role in personality formation, but rarely is it a central or overriding factor.
20. (p. 403) Personality traits are relatively permanent and enduring qualities that a person shows in most situations. Many of the over 18,000 English words referring to personal characteristics fit this term.
21. (p. 403) To understand personality, trait theorists attempt to classify traits, and to reduce them to a manageable number by discovering which are most basic.
22. (p. 403) One such psychologist, Gordon Allport, has written extensively about personality traits. He identifies common and individual traits.
23. (p. 403) Common traits are those shared by most members of a culture and help reveal the similarities among people.

24. (p. 403) Individual traits characterize the unique individual.
25. (p. 403) The study of personality in general has been called the nomothetic approach and the detailed study of a single individual, the idiographic approach.
26. (p. 403) Allport has also distinguished three other types of traits. Cardinal traits are so basic that all of a person's activities can be traced to the existence of the trait.
27. (p. 403) Central traits are the basic building blocks that make up the core of personality. A surprisingly small number of these are sufficient to capture the essence of a person.
28. (p. 404) Secondary traits are less consistent and less important aspects of a person. They include such things as food preferences, attitudes, reactions to particular situations, and opinions.
29. (p. 404) A second major approach to the study of personality traits is illustrated by the work of Raymond Cattell, who was dissatisfied with merely classifying traits, but instead wanted to reach deeper into personality.
30. (p. 404) Cattell began by studying characteristics making up the visible portions of personality called surface traits.
31. (p. 404) Through use of questionnaires, direct observation, and life records, Cattell assembled data on the surface traits of a large number of people. He then noted that surface traits often appear in clusters or groupings.
32. (p. 404) Some traits appeared together so often they seemed to represent a single more basic trait. Cattell called such underlying personality characteristics source traits.
33. (p. 404) While Allport classified traits subjectively, Cattell used a statistical technique called factor analysis to reduce surface traits to source traits. This procedure uses groups of correlations to identify interrelated traits.
34. (p. 404) Cattell's list of source traits forms the basis of a personality test called the Sixteen Personality Factor Questionnaire (often referred to as the 16 PF).
35. (p. 404) Like many personality tests of its type, the 16 PF can be used to produce a trait profile. This is a graphic representation of the scores obtained by an individual on each trait.
36. (p. 404) Traits are a good way to describe personality, but they do little to explain behavior. This is true because of the circularity of a trait approach.

37. (p. 404) Birth order, or ordinal position, in a family can leave a lasting imprint on adult personality, the clearest differences being between first born and later-born children.
38. (p. 404) The first born seem to have a higher chance of achieving eminence than later-born, but are also shyer, more conforming, and more likely to be anxious under stress than later-born persons.
39. (p. 405) Later-born persons tend to excel in social relationships. They are affectionate, friendly, and at ease with others. They also tend to be more original and creative than first borns.
40. (p. 405) The reason for these differences seems to lie in the "emotional set" parents bring to each child.
41. (p. 405) The first born often get more attention, praise and concern with high parental expectations translated into high self-expectations. However, the inexperienced parents of the first born are more anxious and inconsistent, which results in higher levels of anxiety and a tendency to conform to adult values.
42. (p. 405) Parents consistently report that they use lighter discipline and were more relaxed with second or later children. The youngest child is particularly prone to be pampered and to have fewer responsibilities than older siblings.
43. (p. 406) The effects of siblings on one's development is also important. Walter Toman suggests that siblings are as important as parents in shaping some aspects of personality. Be familiar with some of the common patterns he describes among siblings.
44. (p. 407) Psychologists use various tools to assess personality. A very direct way to learn about a person's personality is to engage in conversation. An interview is described as unstructured if the conversation is informal and the interviewee allowed to determine what subjects are discussed.
45. (p. 407) In a structured interview, information is obtained by asking a series of preplanned questions.
46. (p. 407) An advantage of interviews is that they are flexible and uncover feelings. They also allow observation of a person's tone of voice, posture, and other body cues.
47. (p. 407) They also have certain limitations. Interviewers can be swayed by preconceptions. A person identified by a title (i.e., housewife) may be misjudged because of an interviewer's attitudes toward a particular life-style.
48. (p. 407) The interviewer's own personality may cause him to accentuate, overlook, or distort qualities of the interviewee. A third problem is the

tendency of interviewees to be influenced by actions of the interviewer.

49. (p. 407) A final problem in interviewing is the halo effect, the tendency to generalize a favorable or unfavorable impression to unrelated details of personality.
50. (p. 408) When used as an assessment procedure, direct observation is a simple extension of the natural interest in "people watching." It is a useful technique but, like interviewing, has limitations.
51. (p. 408) For this reason, rating scales are used which limit the chance of overlooking some traits while exaggerating others.
52. (p. 408) A specialized form of direct observation is called situational testing. It is based on the premise that the best way to learn how a person would react to a certain situation is to simulate that situation.
53. (p. 408) A good example of the use of situational testing was devised by the Office of Strategic Services during World War II. Here candidates were observed in situations testing the abilities necessary for success as a spy.
54. (p. 409) Most personality questionnaires are paper-and-pencil tests requiring a person to answer questions about himself. As measures of personality, they are more objective than interviews or observation.
55. (p. 409) The best known and most widely used objective test of personality is the Minnesota Multiphasic Personality Inventory (usually referred to as the MMPI).
56. (p. 409) The MMPI is composed of 550 items to which a subject must respond true or false or cannot say.
57. (p. 409) The answer to a single item of the MMPI tells nothing about personality. It is only through patterns of response that personality dimensions are revealed.
58. (p. 409) The MMPI was designed to measure ten major aspects of personality. Each is represented by a separate subscale on the test. One of the subscales reflects hypochondria, exaggerated concern about one's physical health. Other scales include depression, hysteria, masculinity/femininity, etc.
59. (p. 409) The Psychopathic deviance subscale shows a disregard for social and moral standards and emotional shallowness in relationships.
60. (p. 410) Psychasthenia suggests presence of irrational fears (phobias) and compulsive (ritualistic) actions.

61. (p. 410) Hypomania suggests emotional excitability, manic moods or behavior, and excessive activity.
62. (p. 410) After the MMPI is scored, results are charted as an MMPI profile. This allows comparison of a person's scores to those produced by normal adults, thus pinpointing various personality disorders.
63. (p. 410) The most common interpretation is that neurotics score high on scales 1-3; psychotics score high on scales 6-9; and antisocial or delinquent persons score highest on scale 4.
64. (p. 410) The MMPI has an additional Lie Scale to detect attempts of subjects to make themselves look better (or worse) than they really are.
65. (p. 410) In contrast to personality assessments that provide information on observable traits, projective tests are designed to uncover deep-seated or unconscious wishes, thoughts, and needs.
66. (p. 411) A projective test provides an ambiguous stimulus which the subject must describe, or about which he must make up a story. You tend to structure your descriptions according to your own life experiences.
67. (p. 411) One of the oldest and most widely used projective tests is the Rorschach Inkblot Test. It consists of a set of ten standardized inkblots.
68. (p. 411) Scoring the Rorschach is complex. A subject's responses are scored in terms of three major categories: (1) location; (2) determinants; and (3) content.
69. (p. 411) Another popular projective test is the Thematic Apperception Test developed by Henry Murray.
70. (p. 412) The TAT consists of 20 sketches depicting various scenes and life situations. The subject is shown each sketch and is asked to make up a story about the people in it.
71. (p. 412) Scoring of the TAT is restricted to analysis of the content of the stories. The psychologist may simply score the frequency of particular themes, motives, etc., as an index of how the subject is feeling and thinking.
72. (p. 412) Although projective tests have been popular with clinical psychologists, their validity is considered lowest among tests of personality, that is their ability to measure what they claim to measure.
73. (p. 412) Because of the subjectivity involved in scoring, reliability (consistency) of judgments among different users of the TAT and Rorschach is also low.

74. (p. 412) Despite the drawbacks of projective tests, many psychologists attest to their value, especially as part of a battery of tests and interviews.
75. (p. 413) Researchers like Melvin Lee, Philip Zimbardo, and Minerva Bertholf have investigated the personalities of "sudden murderers"—those who explode and commit violent crimes without warning.
76. (p. 413) They found that sudden murderers were passive, shy, and overcontrolled individuals. Their attacks are usually triggered by a minor irritation or frustration, but based on years of unexpressed feelings of anger and belittlement. They often have amnesia for some or all of their violent actions.
77. (p. 413) The habitually violent inmates studied tended to be "masculine" (aggressive), impulsive (impulsive), and less likely to view themselves as shy than the average person. Their violence was moderate—usually only enough to do the necessary damage—and they typically felt they had been cheated or betrayed and were doing what was necessary to remedy the situation or to maintain their manhood.
78. (p. 415) William Whyte has offered several suggestions to help avoid some of the pitfalls of test taking. His basic idea is that, "You don't win a good score—you avoid a bad one." It is suggested that you present moderate views, but avoid trying to create a false impression.
79. (p. 415) "Above-board" tests like those developed by Frank McMahon have been proposed to avoid the problems of traditional tests. The intent of test questions is clearly stated. The evidence suggests that accuracy of test predictions may be improved either through these kinds of tests or when subjects are clearly aware of the intent of questions.
80. (p. 416) If you feel you have been inaccurately rated by a personality test, you have the right to review and appeal personnel decisions, according to a U.S. Supreme Court ruling handed down in 1971 limiting the use of tests as conditions for employment or promotion.
81. (p. 417) Sandra Bem has used the Bem Sex Role Inventory (BSRI) to classify individuals as traditionally masculine, feminine, or androgynous (literally meaning "man-woman").
82. (p. 417) She found that 50 percent of those surveyed fell into traditional masculine or feminine categories, 15 percent scored higher on traits characteristic of the opposite gender, and 35 percent were androgynous, getting roughly equal scores on the masculine and feminine items.
83. (p. 417) Bem has found that androgynous individuals are more adaptable; they behave in ways that are appropriate for a given situation without being limited by sex roles.

84. (p. 417) Bem's conclusion from a number of studies is that rigid sex roles can seriously restrict behavior, especially for men.

SELF TEST

1. One's enduring and unique behavior patterns defines which of the following?
 - a. disposition
 - b. character
 - c. personality
 - d. temperament
2. Of the following, who first proposed that people are either introvert or extrovert types?
 - a. Jung
 - b. Allport
 - c. Sheldon
 - d. Murray
3. True False. Psychologists are hesitant in speaking of personality "types" because they tend to oversimplify personality and are usually less than accurate when describing any one individual.
4. Sheldon's system of body types classifies which somatotype as a robust development of muscles, bones, and ligaments with a hard, muscular, or angular appearance?
 - a. endomorphy
 - b. ectomorphy
 - c. mesomorphy
 - d. somatomorphy
5. Which of Sheldon's personality types corresponds to a self-conscious, shy, sensitive, nervous person with a need for privacy and intellectual stimulation?
 - a. viscerotonia
 - b. cerebrotonia
 - c. somatotonia
 - d. mesotonia
6. Of the following, which traits are defined by Allport as ones that are so basic that all of a person's activities can be traced to the existence of that trait?
 - a. common
 - b. secondary
 - c. central
 - d. cardinal
7. Traits such as food preference, political opinions, and reactions to particular situations are classified by Allport as which of the following types?
 - a. cardinal
 - b. central
 - c. secondary
 - d. unique

8. The 16 PF was developed by which of the following?
a. Allport
b. Sheldon
c. Cattell
d. Jung
9. True/False. Cattell formed his surface traits from certain core traits of the individual known as source traits.
10. True/False. While trait analysis is plagued by circularity of approach in actually explaining behavior, it has been most useful in refining personality measurement and testing.
11. Of the following, which statements represent disadvantages of the interview technique of assessing personality? (Indicate by circling.)
- a. interviewer can be swayed by preconceptions
- b. interviewer's own personality may cause them to accentuate, overlook, or distort qualities of the interviewee
- c. interviewee may be influenced by actions of the interviewer
- d. halo effect
- e. appearance and particularly sex of interviewer may influence interviewee
- f. is inflexible and fails to uncover feelings
- g. does not give rapid insights into personality
12. The best known and most widely used objective test of personality is the
a. 16 PF.
b. MMPI.
c. Rorschach.
d. TAT.
13. Of the following, which is defined by the presence of irrational fears (phobias) and compulsive (ritualistic) actions?
a. hypomania
b. paranoia
c. psychasthenia
d. hypochondriasis
14. Of the following, which is designed to uncover deep-seated or unconscious wishes, thoughts, and needs?
a. personality questionnaires
b. projective tests
c. interviews
d. observation and rating scales
15. The TAT was developed by which of the following?
a. Jung
b. Murray
c. Sheldon
d. Rorschach

16. Of the following, which is analyzed when the TAT projective test is used?
 - a. location
 - b. content
 - c. determinants
 - d. detail
17. True-False. Central traits are defined as those shared by most members of a given society.
18. Of the following, which make use of rating scales to limit bias?
 - a. interviews
 - b. projective tests
 - c. direct observations
 - d. personality questionnaires
19. True-False. The MMPI investigates patterns of responses rather than relying upon single items to assess personality.
20. Of the following, which have the lowest validity among tests of personality?
 - a. interviews
 - b. questionnaires
 - c. direct observations
 - d. projective tests
21. Of the following, which is personality evaluated?
 - a. disposition
 - b. character
 - c. temperament
 - d. trait
22. Situational testing is a special form of
 - a. interviews.
 - b. projective tests.
 - c. personality inventories.
 - d. direct observations.
23. True-False. The location, determinants, and organization of responses to the Rorschach are considered less important than content.
24. Ambiguous stimuli are part of which type of assessment technique?
 - a. direct observation
 - b. personality inventories
 - c. projective tests
 - d. situational testing
25. True-False. Personality is a hypothetical construct and is thus not directly observable.
26. True-False. Androgynous individuals are usually less adaptable because they do not know how to implement sex-role appropriate behaviors.

27. Which of the ordinal positions of birth is most likely to produce a child with high self-expectations, anxiety, and conformity?
- a. first
 - b. middle
 - c. last
 - d. they are all about equal
28. True-False. "Sudden murderers" are more likely to be habitually violent individuals who feel cheated or betrayed and are very impulsive.
29. True-False. In taking a personality test for employment or promotion, it is wise to present as good an image as possible, even if that is not truly realistic.

ESSAY QUESTIONS

1. Discuss the use of personality types and traits. What are their uses and advantages and their weaknesses and disadvantages?
2. What defines "androgyny"? What are some of the characteristics of androgynous individuals (include appropriate discussion of pertinent research—BSRI)?
3. Describe the various personality assessment tools, their advantages and disadvantages.
4. Compare and contrast the approaches to personality of Cattell and Allport.

Theories of Personality 19

TERMS AND CONCEPTS

psychoanalytic theory
id
ego
superego
pleasure principle
libido
life instincts (Eros)
death instinct (Thanatos)
primary process thinking
reality principle
secondary process thinking
conscience
ego-ideal
displacement
sublimation
neurotic anxiety
moral anxiety
ego-defense mechanisms
neo-Freudians
striving for superiority
feelings of inferiority
style of life
creative self
basic anxiety
persona
personal unconscious
collective unconscious
archetypes
anima
animus
shadow
self archetype
mandalas
social learning theorists

radical behaviorist
drive
cue
response
reward
self-reinforcement
self-actualization
self
phenomenal field
self-image
symbolization
incongruent
congruence
ideal self
socialization
psychosexual stages
 oral
 anal
 phallic
 latency
 genital
erogenous zone
fixations
Oedipus conflict
Electra conflict
identification
imitation
conditions of worth
positive self-regard
organismic valuing
moral development
 preconventional level
 conventional level
 postconventional level

IMPORTANT INDIVIDUALS

Sigmund Freud
 Alfred Adler
 Karen Horney
 Carl Jung

B. F. Skinner
 John Dollard and Neal Miller
 Carl Rogers
 Abraham Maslow
 Lawrence Kohlberg

PROGRAMMED REVIEW

1. (p. 421) The first truly comprehensive approach to understanding personality was developed by Sigmund Freud.
2. (p. 421) Freud became interested in the treatment of mental disorders when he determined that many of his patients' problems were without physical cause.
3. (p. 421) Starting about 1890 and continuing to his death in 1939 Freud evolved a theory of personality and refined a treatment system known as psychoanalytic theory.
4. (p. 421) Freud conceived of personality as a dynamic system of energies directed by three structures: the id, ego, and superego which usually are involved in any behavioral situation.
5. (p. 421) The id is made up of inherited biological instincts and urges present at birth. It is self-serving, irrational, impulsive, and totally unconscious.
6. (p. 421) The id operates on a pleasure principle, meaning that pleasure-seeking impulses of all kinds are freely expressed.
7. (p. 421) The energy for the entire psyche, or personality, was called the libido.
8. (p. 421) The libido derives from the life instincts (Eros) which promote survival and underlie sexual desires.
9. (p. 421) Freud also postulated a death instinct (Thanatos) which he deemed responsible for aggressive and destructive urges.
10. (p. 421) Most id energies are directed toward discharge of tensions associated with sex and aggression.
11. (p. 422) The id can only produce mental images of things it desires (called primary process thinking). It must rely on others to carry out its orders.
12. (p. 422) The ego, sometimes described as the executive, draws its energy from

the id. It directs the personality by matching the desires of the id with external reality.

13. (p. 422) Whereas the id operates on the pleasure principle, the ego is directed by the reality principle, delaying action until it is appropriate.
14. (p. 422) This results in secondary process thinking, which is basically realistic problem solving. The ego is thereby the system of thinking, planning, and deciding.
15. (p. 422) The superego acts as a judge or censor for the thoughts and actions of the ego. It is composed of a number of different aspects.
16. (p. 422) One part of the superego, called the conscience, represents all actions for which a person has been punished.
17. (p. 422) If you act contrary to standards of the conscience, you are punished internally by guilt feelings.
18. (p. 422) The ego-ideal represents all behavior one's parents approved or rewarded. It is a source of goals and aspirations.
19. (p. 422) When the standards of the ego-ideal are met, pride is felt.
20. (p. 422) In explaining sexual behaviors and desires, if sexual tension is not directly released, it may be displace or sublimate to other activities like sports, music, dancing, etc.
21. (p. 422) When the ego is threatened or overwhelmed, the person feels anxiety. Impulses from the id that threaten a loss of control cause neurotic anxiety. Threats of punishment from the superego cause moral anxiety.
22. (p. 422) Everyone develops habitual ways of reducing these anxieties and many resort to use of ego-defense mechanisms to lessen internal conflicts.
23. (p. 423) The id, ego, and superego operate on two other levels besides the unconscious. The conscious level includes everything we are aware of at a given moment. The preconscious contains material that can be readily brought to awareness.
24. (p. 423) Freud's revolutionary ideas quickly attracted a brilliant following. Those who stayed closest to the core of Freud's thought are now referred to as neo-Freudians.
25. (p. 423) Alfred Adler broke away from Freud because he disagreed with Freud's emphasis on the unconscious, on instinctual drives, and on the importance of sexuality. Adler believed that we are social creatures governed by social urges—not by biological instincts.

26. (p. 423) In Adler's view, the main driving force in personality is a striving for superiority motivated by feelings of inferiority.
27. (p. 424) While everyone strives for superiority, each person tries to compensate for different limitations and each chooses a different pathway to superiority.
28. (p. 424) Adler believed that this creates a unique style of life or personality pattern for each individual.
29. (p. 424) He later emphasized the existence of a creative self, the ability to continuously create personality through choice and experience.
30. (p. 424) Karen Horney remained faithful to most of Freud's ideas, but rejected the claim that "ontology is destiny." She was among the first to counter the obvious male bias in Freud's thinking.
31. (p. 424) She also disagreed with Freud about the causes of neurosis. Horney's view was that a core of basic anxiety occurs when people feel isolated and helpless in a hostile world. This causes troubled individuals to exaggerate a single mode of interacting with others.
32. (p. 424) According to Horney, each of us can move toward others, away from others, or against others. Emotional health requires a balance of each. Emotional problems lock people into overuse of only one of the three modes.
33. (p. 424) Carl Jung parted ways over Freud's insistence that libido is mainly a sexual energy. His major emphasis is that we become dehumanized when we lose touch with the deeper unconscious layers of ourselves.
34. (p. 424) Like Freud, Jung called the conscious part of the personality the ego, but noted that between the ego and the outside world we often find a persona or mask.
35. (p. 424) The ego serves four psychological functions or ways of perceiving and reacting to the world around and within us: thinking, feeling, sensing, and intuiting.
36. (p. 425) Jung expanded Freud's idea of the unconscious to include a second unconscious region. The personal unconscious corresponds roughly to Freud's unconscious. But below this level lies a deeper collective unconscious common to all humans.
37. (p. 425) At the collective unconscious level are the archetypes of human experience. They are unconscious images that cause us to respond emotionally to symbols of birth, death, energy, animals, evil, and the like.
38. (p. 425) Two particularly important archetypes are the anima (representing the female principle) and the animus (representing the male principle). Each person has both.

39. (p. 425) Another important archetype is the shadow, representing the deepest animal instincts and primitive biological roots of personality. It is similar to Freud's concept of the id.
40. (p. 425) Jung considered the self archetype the most important because it represents unity. He believed it is symbolized in every culture by mandalas (magic circles).
41. (p. 426) Learning theories of personality and the behaviorist position stress that personality is no more (or less) than a collection of learned behavior and habitual responses.
42. (p. 426) Social learning theorists (who emphasize the importance of social relationships and observational learning) reject the idea that personality is made up of consistent traits.
43. (p. 426) Instead the social learning theorist stresses reactions to specific situations.
44. (p. 427) A more extreme view of personality known as radical behaviorism is held by Skinner, who believes that everything a person does is ultimately based on past and present rewards and punishments.
45. (p. 427) Learning theorists Dollard and Miller consider habits the basic structure of personality.
46. (p. 427) As for the dynamics of personality, they believe habits are governed by four elements of the learning process. The first, drive, is any stimulus strong enough to goad a person to action.
47. (p. 427) Cues are signals from the environment that guide responses so they are most likely to bring about reinforcement.
48. (p. 427) The other two processes are response and reward.
49. (p. 427) Social learning theory adds to Dollard and Miller's analysis the concept of self-reinforcement, personal rewards we give ourselves in response to a positive evaluation of our actions.
50. (p. 427) According to the humanists, man is separate from the rest of the animal kingdom. Man is viewed as a creative being capable of making responsible choices. This leads to a greater emphasis on immediate subjective experience than on prior learning.
51. (p. 427) Humanists tend to be optimistic in their belief that people are motivated not merely to survive, but to strive for continual self-improvement. Their basic rallying point is faith in an innate human capacity for self-actualization, meaning fulfillment of potential.
52. (p. 428) One influential humanist, Rogers, sees the fully functioning

person as one who has achieved an openness to feelings and experiences, and who has learned to trust inner urges and intuitions.

53. (p. 428) Rogers' theory of personality centers on the concept of the self.
54. (p. 428) The self is a flexible and changing perception of personal identity that emerges from the phenomena field.
55. (p. 428) The phenomenal field is a person's total subjective experience of reality.
56. (p. 428) The self-image is made up of those experiences identified as "I" or "me" which are separated from "not me" experiences.
57. (p. 428) According to Rogers, experiences that match the self-image are symbolized (admitted into consciousness) and contribute to gradual changes in the self.
58. (p. 428) Information or feelings inconsistent with the self-image are said to be incongruent.
59. (p. 429) When a person's self-image is consistent with what they really think, feel, do, and experience, they are best able to actualize their potentials. This is called congruence.
60. (p. 429) The ideal-self is similar to Freud's ego-ideal. It is your image of the person you would most like to be.
61. (p. 429) Every society must bring about the socialization of its children by teaching them language, customs, rules, roles, and morals.
62. (p. 429) Freud theorized that the core of personality is formed before age six in a series of psychosexual stages.
63. (p. 430) These stages include the oral, anal, phallic, and genital.
64. (p. 430) At each stage a different part of the body becomes an erogenous zone (an area capable of producing pleasure). It serves as the principle source of pleasure, frustration, and self-expression.
65. (p. 430) Freud believed that many adult personality traits can be traced to fixations in one or more of the stages (an unresolved conflict or emotional "hang-up").
66. (p. 430) Fixation early in the oral stage produces an oral dependent personality who is gullible, passive and needs lots of attention.
67. (p. 430) Fixation later in the oral stage causes an oral aggressive adult who is argumentative, cynical, and exploitive of others.

68. (p. 430) Fixation during the anal stage can lead to the anal - retentive personality, who is obstinate, stingy, orderly, and compulsively clean. It may also lead to the anal - expulsive personality who is disorderly, destructive, cruel, or messy.
69. (p. 430) During the phallic stage, increased sexual interest causes the child to become physically attracted to the parent of the opposite sex. In males this generates the Oedipus conflict, in which the boy feels rivalry with his father for the affection of the mother.
70. (p. 430) To alleviate his fear of the rival father (specially fear of castration), the boy must identify with the father, and form a conscience.
71. (p. 430) With girls, there is a competition for the father which produces the Electra conflict.
72. (p. 430) Fixation during this stage produces the phallic personality who exhibits vanity, exhibitionism, sensitive pride, and narcissism.
73. (p. 430) During the genital stage, personality is marked by a growing capacity for mature and responsible social-sexual relationships. This last stage comes after a long period of latency during which psychosexual development is temporarily interrupted.
74. (p. 431) Freud's theory has been widely influential for a number of reasons. First, it pioneered the idea that the first years of life help shape adult personality.
75. (p. 431) Secondly, it identified feeding, toilet - training, and early sexual experiences as critical events in personality formation.
76. (p. 431) Third, Freud was among the first to propose that development proceeds through a series of stages.
77. (p. 431) Many of Freud's major points can be restated in terms of modern learning theory. Miller and Dollard consider four situations of critical importance. These are: feeding, toilet or cleanliness training, sex training, and anger or aggression training.
78. (p. 432) Behaviorists tend to stress two processes that contribute greatly to personality development in general, and particularly to sex training. They are identification and imitation.
79. (p. 432) Identification refers to the child's desire to be like adults he or she admires or is dependent upon. Many sex traits come from identification with the behavior patterns of the same - sex parent.
80. (p. 432) Imitation is an important source of learning. Psychologist Albert Bandura and others have shown that learning takes place

Vicariously as well as directly. This means we can learn without direct reward by observing and remembering the actions of others.

81. (p. 432) An example of differential sex role learning is provided by the study of Lisa Serbin and Daniel O'Leary. They found that boys were three times more likely to get teacher attention for aggressive or disruptive behavior than were girls.
82. (p. 432) Boys who hit other students or broke things typically got attentional reinforcement through loud scoldings, while girls got more attention when they were within arms' reach (therefore being reinforced for submissive, dependent, passive behavior).
83. (p. 433) From the humanists' viewpoint, the development of one's self-image is highly dependent on information from the environment and contributes to later personality functioning. Rogers holds that positive and negative evaluations by others cause a child to develop internal standards of evaluation called conditions of worth.
84. (p. 433) By this he means that we learn that some actions win our parents' love and approval while others are rejected. This is directly related to a later capacity for positive self-regard.
85. (p. 433) He believes congruence and self-actualization are encouraged by substituting organismic valuing for conditions of worth.
86. (p. 433) Organismic valuing is a direct, gut-level response to life experiences that avoids the filtering and distortion of incongruence.
87. (p. 434) In evaluating the different theories of personality, psychoanalytic theory seems to overemphasize biological instincts and presents an unnecessarily dim view of human potential. Also Freud has been particularly criticized for his preoccupation with conflicts related to sex and aggression.
88. (p. 434) One of the most telling criticisms of Freudian theory is that it can be used to explain any psychological event after it has occurred, but offers little help in predicting future behavior.
89. (p. 434) Of the three major perspectives, the behaviorists have made the best effort to rigorously test and verify their concepts.
90. (p. 434) However, the most valid criticism raised against it is that it can be a narrow approach to the rich textures of human experience.
91. (p. 434) The chief criticism of the humanistic approach lies in the lack of precision of its concepts. Its real strength lies in its encouragement for self-examination and personal growth.
92. (p. 437) While self-actualization offers the promise of personal growth, creativity,

and fullness of life, it requires hard work, patience, and commitment. It is primarily a process, not a goal or an endpoint.

93. (p. 437) Several suggestions can be gleaned from the writings of Abraham Maslow as suggestions on how to achieve self-actualization. One is to be willing to change.
94. (p. 437) You must learn to take responsibility. You can become an architect of self by acting as if you are personally responsible for every aspect of your life.
95. (p. 437) Another point is to examine your motives. Use self-discovery to try to make each life decision a choice for growth, not a response to fear or anxiety.
96. (p. 437) Try to see things as they are, not as you would like them to be. In other words, experience things honestly and directly.
97. (p. 437) Make use of positive experiences to promote growth. You might actively repeat activities that cause "peak experiences" (temporary moments of self-actualization).
98. (p. 437) Actualizing potentials may place you at odds with cultural expectations. This may produce fear which keeps many people from becoming what they might. You must be prepared to be different.
99. (p. 438) Maslow found that self-actualizers tend to have a mission or "calling" in life. Therefore, get involved and committed to problems outside yourself.
100. (p. 438) Self-awareness takes time to develop. Slow down and avoid hurrying or overscheduling your time.
101. (p. 438) A valuable means of promoting self-awareness is to start a journal. Keeping records of experiences, daily thoughts, feelings, and attitudes can help make growth-oriented life changes.
102. (p. 438) As a final note, assess your progress. It is important to gauge your progress and to renew your efforts. Boredom is a good sign you are in need of further growth and change.
103. (p. 439) To study moral development, Lawrence Kohlberg posed moral dilemmas to children of different ages.
104. (p. 439) Kohlberg identified three levels and six stages of moral development. The first level, preconventional, includes punishment orientation (stage 1), where actions are evaluated in terms of possible punishment, not goodness or badness. Here obedience to power is emphasized.

105. (p. 439) A second stage of the preconventional level involves a pleasure-seeking orientation. At this stage, right action is determined by one's own needs.
106. (p. 439) The second level of moral development, the conventional level, includes stage 3 development called good boy good girl orientation. Good behavior is that which brings approval or pleases others.
107. (p. 439) Stage 4 (conventional level), authority orientation, involves an emphasis on upholding law, order, and authority, doing one's duty, and following social rules.
108. (p. 439) The third level is called the postconventional level. It includes stage 5, social - contract orientation, where support of laws and rules is based on rational analysis and mutual agreement.
109. (p. 439) Also included is stage 6, morality of individual principles, where behavior is directed by self-chosen ethical principles that tend to be general, comprehensive, or universal.
110. (p. 439) Kohlberg found that people advance through the stages at different rates. Stages 1 and 2 are most characteristic of young children and older delinquents. Conventional group-oriented morals of stages 3 and 4 are characteristic of older children and most of the adult population. Kohlberg estimates that postconventional morality, representing self-direction and higher principles, is characteristic of only about 20 percent of the adult population and only about 5 to 10 percent consistently operate at stage 6.

SELF TEST

- Freud conceived personality as a dynamic system of energies involving which of the following structures? (Indicate by circling.)

| | |
|--------------------|---------------|
| a. <u>id</u> | e. conscience |
| b. self-image | f. libido |
| c. self | g. <u>ego</u> |
| d. <u>superego</u> | h. Eros |
- According to Miller and Dollard of the behaviorist camp, which of the following is the basic structure or component of personality?

| |
|------------------|
| a. response |
| b. needs |
| c. <u>habits</u> |
| d. self-image |
- The humanists' term for fulfillment of potential is

| | |
|------------------------------|------------------------|
| a. <u>self-actualization</u> | c. condition of worth. |
| b. growth fulfillment. | d. congruence. |

4. A person's total subjective experience of reality is called
 - a. self-image.
 - b. reality perception.
 - c. conscious understanding.
 - d. phenomenal field.
5. In the view of Alfred Adler, the main force in personality is
 - a. libido.
 - b. striving for superiority.
 - c. feelings of inferiority.
 - d. basic anxiety.
6. According to Freud, a person whose personality is characterized as obstinate, stingy, orderly, and compulsively clean would be classified as
 - a. oral-aggressive.
 - b. anal-expulsive.
 - c. anal-compulsive.
 - d. anal-retentive.
7. Of the following approaches, which has done the best job to rigorously test and verify their concepts?
 - a. humanism
 - b. psychoanalysis
 - c. behaviorism
 - d. cognitivism
8. Of the following, which operates on the reality principle?
 - a. id
 - b. ego
 - c. superego
 - d. self
9. According to psychoanalysis, which of the following provides all of the energy for the personality?
 - a. id
 - b. libido
 - c. Eros
 - d. Thanatos
10. According to Freud, a personality characterized as argumentative, cynical, and exploitive of others is
 - a. anal-retentive.
 - b. oral-aggressive.
 - c. oral-dependent.
 - d. anal-expulsive.
11. According to psychoanalysis, which of the following occurs during the phallic stage of development? (Indicate by circling.)

- a. Electra conflict
- b. elimination fixation
- c. Oedipus conflict
- d. conscience formation

- e. castration anxiety
- f. toilet training frustrations
- g. expression of oral needs
- h. development of erogenous zones

12. According to Miller and Dollard, which of the following contribute greatly to personality development in general, and particularly to sex training?

- a. identification
- b. fixations
- c. life instincts
- d. imitation

13. List the three levels of consciousness described by Freud.

unconscious conscious preconscious

What two levels were postulated by Jung?

personal unconscious collective unconscious

14. Of the following, which describes the emphasis of the humanistic approach to personality?

- a. subjective experience
- b. objective experience
- c. previous learning
- d. stages of psychosexual development

15. True/False A close match between the ideal-self and the self-image creates a condition called self-actualization.

16. The view that emotional health requires a balance in moving toward, away from, and against others was first proposed by

- a. Sigmund Freud.
- b. Carl Rogers.
- c. Alfred Adler.
- d. Karen Horney.

17. Indicate (by circling) which of the following are important archetypes in Jung's theory of personality.

- a. Thanatos
- b. animus
- c. Eros
- d. self

- e. shadow
- f. persona
- g. animus
- h. complexes

18. True/False. Psychoanalysis has been most influential in later psychological theories, because it pioneered the idea that the first years of life help shape adult personality.

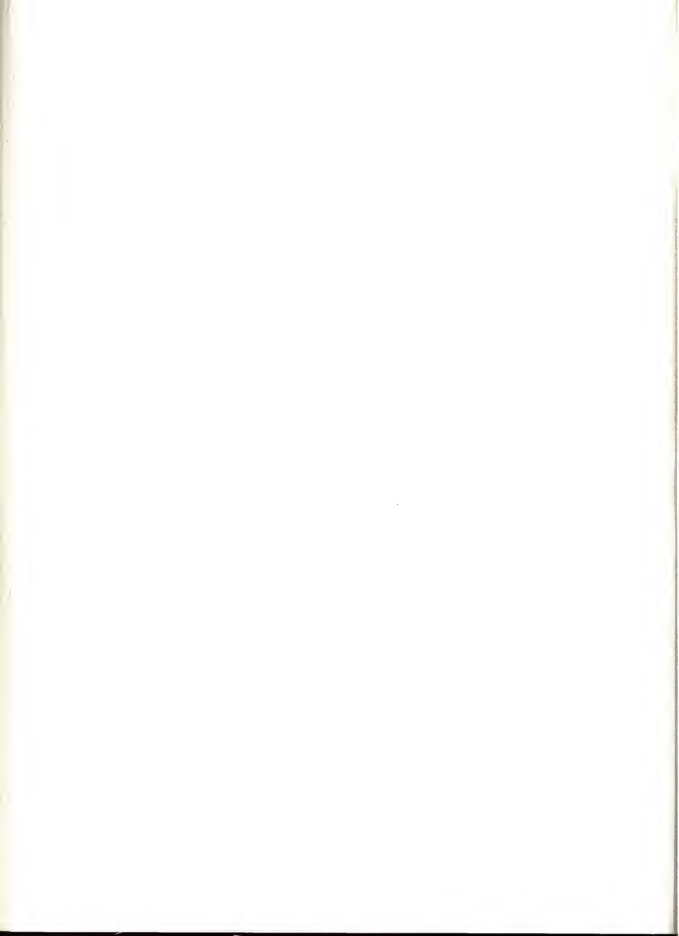
19. According to Rogers, a direct, gut-level response to life experiences that avoids the filtering and distortion of incongruence is called

- a. self-actualization.
- b. organismic valuing.
- c. conditions of worth.
- d. ideal self.

20. Of the following, which operates on the pleasure principle?
- ego
 - id
 - self
 - Thanatos
21. If you act contrary to standards of the superego, you are punished internally by
- unconscious cravings.
 - erogenous zones.
 - fixations.
 - guilt.
22. True-False. Kohlberg found that everyone goes through six stages of moral development, but not necessarily at the same rate.
23. According to Horney, the result when people feel isolated and helpless in a hostile world is
- incongruence.
 - organismic devaluing.
 - basic anxiety.
 - feelings of inferiority.
24. True-False. Social learning theorists reject the idea that personality is made up of consistent traits.
25. Of the following, which is in conscious control of the personality and acts as an executive for action?
- id
 - libido
 - ego
 - superego

ESSAY QUESTIONS

- Compare and contrast the three energy structures of personality according to Freud's theory of psychoanalysis.
- Describe the strengths and weaknesses of the three approaches to personality discussed in the text.
- Discuss how different neo-Freudians accepted and/or altered Freud's original thinking.
- Discuss the principles of how to achieve self-actualization.
- Describe Kohlberg's system of moral development. Which level best characterizes you?



Deviance and Disorder: 20

The Unhealthy Personality

TERMS AND CONCEPTS

psychopathology
Diagnostic and Statistical Manual of
Mental Disorders (DSM)
organic mental disorders
substance use disorders
psychotic disorders
affective disorders
mania
depression
anxiety disorders
phobias
panic
generalized anxiety
obsessive-compulsive
somatoform disorders
dissociative disorders
amnesia
fugue
multiple personalities
personality disorders
psychosexual disorders
gender identity
transsexualism
psychosexual dysfunctions
neurosis
insanity
subjective discomfort
normal curve

sociopath, psychopath
pedophilia
bestiality
incest
fetishism
exhibitionism
voyeurism
transvestism
sadism
masochism
adjustment disorders
combat exhaustion
traumatic neurosis
anxiety attack
phobias
acrophobia
agoraphobia
claustrophobia
nyctophobia
pathophobia
zoophobia
obsessions
compulsions
hypochondria (somatization disorder)
conversion reactions
glove anesthesia
neurotic paradox
anomie

IMPORTANT INDIVIDUALS

Sigmund Freud
 Carl Rogers
 Emile Durkheim

David Lester
 Ted Rosenthal
 Glenn White

PROGRAMMED REVIEW

1. (p. 447) _____ may be defined as the inability to behave in ways that foster the well-being of the individual and ultimately of society.
2. (p. 446) Some of the facts of psychopathology are startling. For example, nearly _____ of all hospital beds in all types of hospitals are occupied by the mentally ill.
3. (p. 446) Also, one out of every _____ children born will experience either a major or a minor mental disorder and one out of every _____ persons will become so severely disturbed as to require hospitalization.
4. (p. 446) In 1975, _____ out of every 1000 people received some form of care at psychiatric hospitals, an increase of _____ percent since 1970.
5. (p. 447) Every year two _____ persons are admitted or readmitted to outpatient services or psychiatric treatment in general hospitals.
6. (p. 447) Psychological problems are grouped into broad categories of maladaptive behavior. The most widely accepted system of classification is found in the _____ and _____ of _____, abbreviated _____.
7. (p. 447) _____ mental disorders are problems caused by known and verifiable brain pathology; that is, by senility, drug damage, drug withdrawal, diseases of the brain, injuries, the toxic effects of poisons, and so on.
8. (p. 447) These disorders are often accompanied by severe emotional disturbances, impairment of _____, _____ loss, _____ changes, delirium, etc.
9. (p. 447) _____ disorders are defined as psychological dependence on mood or behavior altering drugs: alcohol, barbiturates, opiates, cocaine, amphetamines, hallucinogens, cannabis, tobacco, and others.
10. (p. 447) Problems in this category usually center on impairment of _____ or _____ functioning and inability to _____ use of the drug.
11. (p. 447) _____ disorders are the most severe type of psychopathology,

often requiring hospitalization. Here there is a loss of contact with reality with a major loss of ability to control thoughts and actions.

12. (p. 447) _____ disorders involve significant disturbances in mood or emotion. Individuals with this disorder may be _____, meaning agitated, euphoric, and hyperactive, or they may be _____, running a high risk of suicide.
13. (p. 447) _____ disorders may take the form of _____ (irrational fears of objects, activities, or situations), panic (in which the person suffers unexplainable feelings of total panic), or _____ (chronic and persistent anxiety).
14. (p. 447) Also associated with this disorder is a pattern known as _____ behavior.
15. (p. 447) _____ disorders are indicated when a person has physical symptoms suggesting physical disease or injury (paralysis, blindness, chronic pain, etc.) for which there is no identifiable cause.
16. (p. 448) _____ disorders include cases of sudden temporary amnesia or personal identity and instances of _____.
17. (p. 448) _____ disorders are deeply ingrained, maladaptive personality patterns, usually recognizable by adolescence and continued throughout most of the individual's adult life.
18. (p. 448) They include _____ (overly-suspicious), narcissistic, dependent, _____, antisocial, _____, and other personality types.
19. (p. 448) _____ disorders include _____ disorders (sex role or gender identity does not match physical gender), _____ (persistent discomfort about one's sex and desire to change to the opposite sex), and a wide range of deviations in sexual behavior (fetishism, voyeurism, etc.).
20. (p. 448) Also included in this category are a variety of _____ (problems in sexual desire or sexual response).
21. (p. 448) The former DSM-II also included neurosis as a disorder. But the new version (DSM-III) omits it because it is too vague a term and lumps together too many separate problems. However, it is still used by mental health professionals to designate disorders in which high levels of _____ (basically inappropriate fear) cause personal discomfort and maladaptive behavior patterns.
22. (p. 448) Neurosis rarely requires hospitalization, as does psychosis, and involves no major loss of contact with reality. Both terms are different from insanity, which is a _____ term, not a psychiatric term.

23. (p. 448) Defining normality is difficult. We can begin by saying that _____ is characteristic of psychopathology. That is, the unhealthy personality will be marked by unhappiness, anxiety, depression, or other signs of emotional upset.
24. (p. 448) In practice, subjective discomfort accounts for most instances in which a person makes a decision to voluntarily seek professional help. However, a problem with this definition of abnormality is that in some cases a person's behavior may be quite maladaptive without producing subjective discomfort. Additionally, in some cases a _____ of discomfort may indicate a problem.
25. (p. 448) Some psychologists have tried to define normality more objectively by using _____.
26. (p. 448) For example, we could develop a test to learn how many people show low, medium, or high levels of anxiety. Usually this type of measurement will produce a _____ (bell-shaped) _____.
27. (p. 449) Unfortunately a statistical definition of abnormality tells us nothing about the meaning of a _____ from the _____.
28. (p. 449) Another major problem with a statistical definition is the question of where to draw the line between _____ and _____.
29. (p. 449) _____ may also serve as a basis for judgments of normality. Abnormal behavior can sometimes be viewed as a failure in _____. Here we refer to the person who has not adopted the usual minimum rules for social conduct or who has learned to engage in socially destructive behavior.
30. (p. 449) Before any behavior can be defined as normal or abnormal, we must consider the _____ in which it occurs.
31. (p. 450) One of the most influential contexts in which any behavior is judged is that of _____. There is always a high degree of cultural relativity in perceptions of normality and abnormality.
32. (p. 450) It should be clear that all definitions of abnormality are _____. In practice, the judgment that a person is abnormal or needs help usually occurs when the person does something that annoys or gains the attention of a person in a position of power who then does something about it.
33. (p. 451) The individual possessing an antisocial personality, known as a _____ or _____, is irresponsible, impulsive, selfish, lacking in judgment, unable to feel guilt, emotionally shallow, unable to learn from experience, lacking in moral values, and has a long history of conflict with society.
34. (p. 451) The sociopath's childhood is usually a history of _____

- _____ and disregard which prevents the development of concern for the feelings of others.
35. (p. 451) Interestingly, sociopaths tested in situations where they must learn to avoid an electric shock show _____ than normal. Also, they produce unusual brainwave patterns suggesting _____ of the brain.
36. (p. 451) Sociopathy is _____ treated with any success since the sociopaths manipulate therapy as they might any other situation. There is, however, some evidence that antisocial behavior declines somewhat after age _____.
37. (p. 452) The mark of true sexual deviations is that they are _____, _____, or cause guilt, anxiety, or discomfort for one or both participants.
38. (p. 452) Deviations fitting this definition are based on a wide variety of behaviors including:
- _____ sex with children
 - _____ sex with animals
 - _____ sex with relatives
 - _____ sexual arousal associated with inanimate objects
 - _____ displaying the genitals
 - _____ viewing the genitals of others
 - _____ achieving sexual arousal by wearing clothing of the opposite sex
 - _____ inflicting pain as part of the sex act
 - _____ receiving pain as part of the sex act
39. (p. 452) The American Psychiatric Association recently removed male _____ and female _____ from its list of sexual deviations, categorizing it as a disorder only when it is accompanied by distress, guilt, self-hate, or similar emotional reactions.
40. (p. 452) James Coleman lists five major misconceptions of sexual deviance. One misconception is that *sexual offenders are typically homicidal sex fiends*. Actually, only about _____ percent of all convicted sex offenders inflict physical injury upon their victims.
41. (p. 452) That *sexual offenders are oversexed from exposure to pornography*, is clearly incorrect since most offenders are _____, more inhibited than average and less exposed to pornography.
42. (p. 452) *Sexual offenders typically suffer from glandular imbalance* is not true since human sexual patterns are _____.
43. (p. 452) *Sexual offenders typically progress from minor to more serious sex crimes*. Again wrong, usually the person _____ in _____ sexually maladaptive activity.

44. (p. 452) *Sexual offenders are usually repeaters.* Sexual offenders have one of the _____ rates of repeated offenses.
45. (p. 452) As an example of these points, _____ are typically married, are shy and passive, are often religious or puritanical, are typically heterosexual, and most often their victims are relatives, friends, or neighbors.
46. (p. 452) Many psychologists no longer think of _____ as an exclusively sexual act; rather it is an act of brutality or aggression.
47. (p. 452) Many rapists are _____ who impulsively take what they want without concern for others or who harbor deep-seated resentment or outright hatred toward women. Their goal is not sexual intercourse, but to attack, subordinate, humiliate, and degrade the victim.
48. (p. 453) Anxiety is similar to fear except that it is a response to a _____ threat or an _____ of harm.
49. (p. 453) When anxiety is extremely intense or out of proportion, it may be considered _____ anxiety or _____ behavior.
50. (p. 454) Some estimates of the frequency of neurosis run as high as _____ percent of the general population, but probably not more than _____ percent ever suffer a severe neurosis.
51. (p. 454) The term nervous breakdown has no formal meaning. It is best described as an _____. This disorder is the result of obvious environmental stresses that push people beyond their ability to cope effectively.
52. (p. 454) A soldier may suffer _____ after an extended period of stress. This is characterized by insomnia or repeated nightmares, loss of appetite, extreme sensitivity, unexplained crying, body tremors, hand wringing, and attacks of uncontrolled anxiety.
53. (p. 454) The civilian equivalent of combat exhaustion is sometimes called a _____ because of its clear connection to environmental stress.
54. (p. 454) Adjustment disorders are usually successfully treated with _____, _____, and a chance to talk through fears and anxieties.
55. (p. 454) Adjustment disorders are sometimes called _____ neuroses, because they disappear when stress is eased. In a true neurosis, the person's anxiety is a lasting pattern that seems completely out of proportion to the situation.
56. (p. 455) At least six months of persistent anxiety is the essential feature of the simplest anxiety disorder, known as _____ disorder. These individuals experience chronic anxiety and continually worry.

57. (p. 455) The presence of _____ differentiates what is known as panic disorder. This disorder is characterized by continuous tension that occasionally explodes into episodes of intense panic.
58. (p. 455) It is sometimes said that such persons suffer from _____ - anxiety since a panic attack can be triggered by almost anything. In addition, they usually suffer from secondary fears about when and where the next attack will occur.
59. (p. 455) _____ are irrational fears that persist even when there is no real danger to a person.
60. (p. 455) Some of the more common problems of phobic disorders are:
_____ fear of heights
_____ fear of open places
_____ fear of closed spaces
_____ fear of darkness
_____ fear of disease
_____ fear of animals
61. (p. 455) The most common and disruptive phobic disorder is _____. One expert estimates one out of every _____ people has this to a degree serious enough to restrict their life.
62. (p. 456) _____ are thoughts or images that intrude into consciousness against a person's will.
63. (p. 456) Obsessions usually give rise to _____, irrational acts a person feels driven to repeat.
64. (p. 457) Such phenomena are characteristic of _____ - disorders. Many simply involve extreme orderliness and rigid routine. This helps the highly anxious person feel more secure by keeping activities totally structured and under control.
65. (p. 457) A _____ is marked by striking episodes of amnesia, fugue, or multiple personality.
66. (p. 457) _____ is the inability to recall one's name, address, or past.
67. (p. 457) _____ is physical flight to escape threat or conflict. It may often accompany amnesia.
68. (p. 457) _____ is a rare condition in which two or more separate personalities exist in an individual. Such was the case with Sybil, a woman who had sixteen complete and totally different personalities.
69. (p. 457) The person who has multiple physical complaints for which medical attention is sought, but for which no clear physical cause can be found, suffers from what is called _____ (formally known as _____).

70. (p. 457) _____ are said to occur when anxiety or severe emotional conflicts are converted into physical symptoms resembling disease or disability.
71. (p. 458) _____ is a loss of sensitivity in the areas of skin that would normally be covered by a glove.
72. (p. 458) Conversion reactions probably account for many of the so-called "miracle cures" attributed to _____ or medical _____.
73. (p. 459) At least three major perspectives on causes of neurosis can be identified. The first comprehensive explanation of neurosis was proposed by _____ and is called the _____ approach.
74. (p. 459) According to Freud, neurosis represents a raging conflict between the three subparts of the personality: the _____, _____, and _____.
75. (p. 459) The ego becomes overwhelmed by anxiety caused by forbidden _____ impulses and guilt generated by the _____ in response to these impulses, resulting in rigid defense mechanisms and inflexible behavior.
76. (p. 459) Psychologist _____, exemplifying the humanistic-existential approach, interprets neurosis as the end-product of a faulty _____ - _____. He feels that the neurotic has built up an unrealistic picture of himself which leaves them vulnerable to contradictory information.
77. (p. 459) Some psychologists take a more existential point of view, emphasizing that neurosis reflects a loss of _____ in one's life.
78. (p. 459) According to this view, humans must exercise _____ and _____ in their choices if life is to have meaning, but too often we back away from life-enhancing choices.
79. (p. 459) This is because we experience "_____, " the anguish that comes from knowing that we will ultimately die, hence, that we have a crushing responsibility to choose wisely and courageously.
80. (p. 459) _____ have generally rejected previous explanations of neurosis. They stress that neurotic behavior is _____ just like any other behavior.
81. (p. 459) All theorists agree that neurotic behavior is ultimately self-defeating. This produces the _____; neurotic behavior makes the person more miserable in the long run, but its immediate effect is to make him feel temporarily less anxious.

82. (p. 459) The behavioristic explanation of the origins of the neurotic paradox is that it is an example of _____. Anxiety has been conditioned to various situations and the immediate reinforcement of relief keeps the neurotic pattern alive.
83. (p. 460) In _____ sadness and despondency are exaggerated and prolonged for unreasonable periods of time.
84. (p. 460) Studies show that in Europe and in this country between _____ and _____ percent of the adult population has had a major depressive episode at some time.
85. (p. 460) Depressive disorders are one of the most frequently occurring neuroses, accounting for approximately _____ percent of all cases treated by private clinicians.
86. (p. 460) Depression and other affective disorders have resisted adequate explanation and treatment. Some researchers are focusing on the biology of mood changes with some success. For example, the chemical _____ can be effective in treatment of some cases of depression, particularly those also showing manic behavior.
87. (p. 460) Others have sought psychological explanations. Psychoanalytic theory, for instance, holds that depression is caused by _____ that is displaced and turned inward as self-blame and self-hate.
88. (p. 460) Suicide ranks as the _____ cause of death in the United States with approximately one person out of _____ attempting suicide at some time in their life.
89. (p. 460) Several factors appear related to suicide; other popular beliefs appear untrue. For example, there is little connection between major holidays and the suicide rate. The peak actually occurs in _____.
90. (p. 460) _____ times as many men as women complete suicide, but women make more attempts, the difference being due to the type of technique selected (men typically use guns, women typically attempt a drug overdose).
91. (p. 460) More than half of all suicides are committed by individuals over _____ years old, although there has been a recent increase in rates for adolescents and young adults.
92. (p. 460) Part of this increase comes from the ranks of college students where suicide is the _____ cause of death, the most dangerous period being the beginning of a semester, not during final exams.
93. (p. 460) Factors important in student suicide appear to include a sense of not living up to extremely high self-imposed standards, chronic _____ problems, and _____ difficulties.

94. (p. 460) Some professions, particularly _____ and _____, show higher than average suicide rates, but generally suicide is not related to income.
95. (p. 460) The highest suicide rates are found among the _____; the next highest rates occur among the _____; lower rates are recorded for single persons; and _____ individuals have the lowest rate of all.
96. (p. 463) Several theories of why people try to kill themselves have been proposed. One theory is that suicide is _____ turned inward. Growing anger to an unfair world the individual cannot change drives the individual to show others how badly they have treated them.
97. (p. 463) French sociologist Emile Durkheim attributed many suicides to what he called _____, a state of alienation brought about by rapidly changing social conditions that cause feelings of rootlessness, lack of identity, and unsatisfying personal relationships.
98. (p. 463) The best explanation may simply come from a look at conditions which precede it. Usually there is a history of interpersonal troubles with family, in-laws, or a lover or spouse. Often there is a _____ problem, _____ adjustment problems, or _____ difficulties. Under such conditions anyone may reach a state of depression severe enough to attempt suicide; it is not limited just to the mentally ill.
99. (p. 463) It is a major fallacy to believe that people who talk about or threaten suicide are rarely the ones who try it. Of every ten potential suicides, _____ give warning beforehand.
100. (p. 463) It is also not true that suicide cannot be prevented. It is estimated that about _____ of all suicide attempts fall into the "to be" category, with another third characterized by a "to be or not to be" attitude. Only about _____ to _____ percent of cases represent individuals who definitely want to die.
101. (p. 464) Suicide expert David Lester believes that in helping potential attempters the most important task is to establish _____ with the person; they need acceptance, not reassurance.
102. (p. 464) You can help by getting the person to commit themselves to daily schedules, even on a small scale. Also, don't end your efforts too soon. One of the most dangerous times is when a person suddenly seems to get better after a severe _____.
103. (p. 466) To determine how small differences in appearance affect perception of normality, psychologists Ted Rosenthal and Glenn White arranged for a healthy undergraduate, "Bill," to visit two psychology classes dressed either "hip" or "square." Bill was introduced as a person who had "spent time in a psychiatric ward," and students were asked to rate the severity of his maladjustment and symptoms. It was found that "hip" students

judged Bill _____ in short hair and sport coat, while "square" students judged him _____ in that attire.

104. (p. 466) In other experiments, psychologists were given psychological test results of nonexistent persons along with case histories suggesting "lower" or "middle-class" economic backgrounds; such persons were judged to be more _____ and predictions for improvement were more _____ for the test results attributed to the "lower" economic class patients.

SELF TEST

1. Nearly _____ of all hospital beds in all types of hospitals are occupied by the mentally ill.
 - a. 1/3
 - b. 1/2
 - c. 2/3
 - d. 3/4
2. _____ disorders are problems caused by known and verifiable brain pathology.
 - a. Substance use
 - b. Organic mental
 - c. Dissociative
 - d. Anxiety
3. _____ disorders are indicated when a person has physical symptoms suggesting disease or injury for which there is no identifiable cause.
 - a. Organic
 - b. Dissociative
 - c. Anxiety
 - d. Somatoform
4. _____ disorders include amnesia, fugue, and multiple personalities.
 - a. Organic
 - b. Anxiety
 - c. Personality
 - d. Dissociative
5. True-False. Acrophobia is the most common and debilitating of the phobic reactions.
6. True-False. Generally, suicide is more common among lower socioeconomic status individuals than those higher in material wealth.
7. True-False. Suicide is the leading cause of death among college students.
8. True-False. Psychosis is the same as insanity.

9. Of the following, which are used as psychological definitions of abnormality? (Indicate by circling.)
- subjective discomfort
 - excessive physiological abnormalities
 - statistical
 - social nonconformity
 - self-report
 - sexual impotency
10. _____ are said to occur when anxiety or severe emotional conflicts are converted into physical symptoms resembling disease or disability.
- Dissociative reactions
 - Hypochondria disorders
 - Somatosensory disorders
 - Conversion reactions
11. True-False. The neurotic patient has lost contact with reality.
12. People who are selfish, impulsive, unable to feel guilt, manipulative, and lacking in moral values are classified as
- psychotic.
 - sociopathic.
 - traumatized.
 - schizophrenic.
13. The early history of sociopaths is usually marked by
- parental double-bind communication.
 - tension and stress.
 - emotional deprivation and disregard.
 - sexual perversion and obscenity.
14. Match the following terms with their definitions.
- | | |
|------------------|---|
| a. pedophilia | _____ sex with animals |
| b. bestiality | _____ sex with blood relatives |
| c. incest | _____ sex with children |
| d. fetishism | _____ sexual arousal associated with inanimate objects |
| e. exhibitionism | _____ receiving pain as part of the sex act |
| f. voyeurism | _____ giving pain as part of the sex act |
| g. transvestism | _____ viewing the genitals of others |
| h. masochism | _____ achieving sexual arousal by wearing the clothes of the opposite sex |
| i. sadism | _____ displaying the genitals |
15. True-False. Male homosexuality and female lesbianism are not considered psychological sexual deviations per se.
16. About _____ percent of sexual offenders inflict physical injury upon their victims.

- a. 5
 - b. 10
 - c. 15
 - d. 20
17. Sexual offenders have one of the highest / lowest rates of repeated offenses. (Indicate correct choice by circling.)
18. True-False. Sexual offenders often suffer from glandular imbalance which can be effectively treated.
19. True-False. Most psychologists consider rape to be an exclusively sexual act.
20. True-False. The presence of anxiety attacks characterizes panic disorders.
21. True-False. The term nervous breakdown has no formal meaning.
22. The civilian equivalent of combat exhaustion is sometimes called
- a. traumatic neurosis.
 - b. anxiety neurosis.
 - c. stress neurosis.
 - d. environmental neurosis.
23. True-False. Adjustment disorders represent a form of true neurosis resulting from extreme environmental stresses.
24. Emile Durkheim attributes many suicides to a condition he calls
- a. existential loss of meaning.
 - b. anomie.
 - c. obsessive disaster.
 - d. learned helplessness.
25. Match each term to the appropriate definition.
- | | | |
|-------------------|-------|-----------------------|
| a. aerophobia | _____ | fear of animals |
| b. agoraphobia | _____ | fear of heights |
| c. claustrophobia | _____ | fear of darkness |
| d. nyctophobia | _____ | fear of open places |
| e. pathophobia | _____ | fear of disease |
| f. zoophobia | _____ | fear of closed spaces |
26. True-False. More women than men attempt suicide, but more men complete the act due to the techniques selected.
27. When anxiety or severe emotional conflicts are converted into physical symptoms resembling disease or disability, it is called
- a. combat exhaustion.
 - b. traumatic neurosis.
 - c. psychosomatic illness.
 - d. conversion reaction.

28. Amnesia, fugue, and multiple personality are examples of
 - a. conversion reaction.
 - b. dissociative disorders.
 - c. traumatic disorders.
 - d. anxiety disorders.
29. Thoughts or images that intrude into consciousness against a person's will which cause anxiety or extreme discomfort are called
 - a. phobias.
 - b. obsessions.
 - c. compulsions.
 - d. hallucinations.
30. Irrational acts a person feels driven to repeat are called
 - a. phobias.
 - b. obsessions.
 - c. compulsions.
 - d. hallucinations.
31. Depressive reactions are one of the most frequently occurring affective disorders, accounting for approximately _____ percent of all treated cases.
 - a. 25
 - b. 50
 - c. 75
 - d. 90
32. The behavioristic explanation of neuroses is that the neurotic paradox is an example of
 - a. avoidance learning.
 - b. observational learning.
 - c. classical conditioning.
 - d. latent learning.
33. Humanists believe that neurosis is the end product of a faulty
 - a. childhood.
 - b. communication skill.
 - c. self-image.
 - d. deflated ego-state.
34. True-False. According to Freud, neurosis represents a raging conflict between conscious and unconscious thought patterns.

ESSAY QUESTIONS

1. Discuss the various definitions of "normality" described in the text. What are the strengths and weaknesses of each?
2. Discuss the factors seemingly related to suicide, such as sex, age, etc.
3. Describe how you as an individual can help prevent a potential suicide.
4. Select three different categories of abnormal behavior and discuss their similarities and differences.

Psychosis 21

TERMS AND CONCEPTS

- delusions
 - depressive
 - somatic
 - grandeur
 - influence
 - persecution
 - reference
- hallucinations
- anesthesia
- organic psychosis
 - general paresis
 - senile psychosis, senile dementia
- functional psychosis
- paranoia
- schizophrenia
 - simple, borderline (schizotypal personality disorder)
 - hebephrenic
 - catatonic
 - paranoid
- affective psychosis (schizoaffective disorder)
 - manic type
 - depressive type
 - manic-depressive (mixed) type
- mutism
- position of checkmate
- double bind communication
- noradrenaline
- dopamine
- phenothiazine
- adrenochrome
- somatic (bodily) therapy
 - chemotherapy
 - minor tranquilizers
 - major tranquilizers (antipsychotics)
 - energizers
 - electroconvulsive therapy (ECT)
 - psychosurgery
 - prefrontal lobotomy
- tardive dyskinesia
- enkephalins
- endorphins
- community mental health centers

IMPORTANT INDIVIDUALS

R. D. Laing
Nathan Kline

David Rosenhan
Thomas Szasz

PROGRAMMED REVIEW

1. (p. 469) _____ represents one of the most serious human psychopathologies, comparable to a major illness in its disruptive effects.
2. (p. 469) One of the major characteristics of psychosis is the presence of _____, false beliefs that are held even when the facts contradict them.
3. (p. 469) One common form of delusions are _____ delusions in which people feel they have committed some horrible crime or sinful deed.
4. (p. 469) Also common in psychosis are _____ delusions, such as belief that one's body is "rotting" away or emitting foul odors.
5. (p. 469) Delusions of _____ may occur as well. Here the individuals think they are extremely important persons.
6. (p. 469) Delusions of _____ occur when individuals feel that they are being controlled by other persons or unseen forces.
7. (p. 469) Delusions of _____ in which the people feel others are "out to get" them are also common.
8. (p. 469) Finally, there may be delusions of _____, in which unrelated events are given personal significance (as when it is assumed that a newspaper article or a TV program is giving a special personal message to the person).
9. (p. 469) _____ are sensory experiences that occur in the _____ of a stimulus.
10. (p. 469) The most common psychotic hallucination is _____, but people may also feel insects "crawling under their skin," taste "poison" in their food or smell "gas" their "enemies" are using to "get" them.
11. (p. 470) Sensory changes may bring about extreme sensitivity to heat, cold, pain, or touch, or _____, a loss of normal sensitivity.
12. (p. 470) _____ also accompany psychosis. Emotions may swing violently between extremes, or the person may be chronically hyperemotional, depressed, or emotionally "flat" or apathetic. In flat effect, there are virtually no signs of emotion.
13. (p. 470) These major disturbances coupled with additional problems in thought, speech, memory, actions, and attention bring about _____ and a break with reality.
14. (p. 470) It is rare to find all these changes occurring at once; usually psychotic behavior occurs in brief _____.

15. (p. 470) One experiment found that the bizarre behavior of ward patients could be manipulated depending upon the supposed purpose of the interview with the experimenters. When disturbed patients were told that the interview was to determine if the patients should be allowed "open ward" privileges, they suddenly became _____ of symptoms.
16. (p. 471) This experiment shows that psychotic symptoms can be considered a primitive form of _____.
17. (p. 471) A psychosis based on known brain pathology caused by disease, gunshot wound, accident, etc., is termed an _____.
18. (p. 471) A psychosis based on unknown or psychological factors is called a _____.
19. (p. 471) One example of organic psychosis is _____, which occurs in a small number of cases of untreated syphilis.
20. (p. 471) One characteristic of general paresis is a loss of _____ leading to shocking profanity and obscenity.
21. (p. 471) A second source of organic psychosis is _____ and _____ poisoning.
22. (p. 471) Probably the greatest cause of organic problems is _____, premature deterioration of the brain caused by circulatory problems, repeated strokes, or general shrinkage and atrophy of the brain. This condition is also known as _____.
23. (p. 471) It is typically marked by disturbances in _____, abstract reasoning, _____, _____ control, and personality, leaving the individual confused, suspicious, apathetic, or withdrawn.
24. (p. 471) One of the three major types of functional psychoses is _____, characterized by delusions of grandeur or persecution.
25. (p. 471) The true paranoid does not suffer from _____, emotional excesses, or personality _____.
26. (p. 471) Paranoids are _____ treated or admitted to mental hospitals, because it is almost impossible to suggest to paranoids that they need help.
27. (p. 472) Another major type of functional psychosis is _____, which accounts for approximately half of all admissions to mental hospitals.
28. (p. 472) Schizophrenia is a major health problem; one person in _____ will become schizophrenic and _____ of all hospital beds in the U.S. are occupied by schizophrenics.

29. (p. 472) The word schizophrenia can be interpreted to mean _____, referring to a split between _____ and _____.
30. (p. 472) _____ or _____ schizophrenia develops gradually, usually starting in adolescence. The individual becomes ever more withdrawn and isolated from their surroundings, displaying dulled emotions.
31. (p. 472) Since borderline schizophrenia is usually a long-term pattern, and the person is not actively psychotic, it is probably best to think of it as a personality disorder (formally called a _____ personality disorder).
32. (p. 473) In _____ the individual's personality disintegrates almost completely, resulting in silliness, laughter, bizarre and often obscene behavior. Chances of improvement are limited and social impairment is usually extreme.
33. (p. 473) In _____ the person seems to be in a state of total panic. This brings about a stuporous condition in which odd positions may be held for hours or days.
34. (p. 473) In this condition, sometimes _____ occurs in which the person can be arranged into any position like a mannequin.
35. (p. 474) _____, or an inability to talk, plus a marked decrease in responsiveness to the environment, makes the catatonic patient difficult to "reach."
36. (p. 474) The most common form of schizophrenic disorder is _____.
37. (p. 474) Paranoid schizophrenia, like paranoia, centers around delusions of grandeur and persecution, but in paranoid schizophrenia there is a major _____ not evident in paranoia.
38. (p. 474) There is considerable overlap among the types of schizophrenia, with patients often shifting from one pattern of behavior to another at different times during the course of the psychosis. Many are simply classified as suffering from _____.
39. (p. 474) The diagnosis of schizophrenia is fairly subjective and open to considerable error. Also, there is evidence that over _____ of those diagnosed have learned to fake some of their symptoms or to mask others in order to lengthen or shorten their hospital stays.
40. (p. 474) Another major type of functional psychosis is _____ which accounts for about 14 percent of the patients admitted to mental hospitals.
41. (p. 474) In addition to the usual disturbances of psychosis, schizoaffective

disorders include persistent and excessive changes in _____ or _____.

42. (p. 474) Individuals suffering from affective reactions may be continuously loud, inappropriately elated, hyperactive and energetic. These individuals are classified as _____ types.
43. (p. 474) Victims of affective reactions may also be continuously sad and guilt-ridden, the _____ type, or may alternate between the two states. The latter is classified as _____ - _____ or _____ type.
44. (p. 475) When manic behavior occurs, it may still be considered a reaction to depression. The manic individual seeks to _____ feelings of worthlessness and depression in an unending rush of activity.
45. (p. 476) Psychologists have sought to understand schizophrenia by looking for unusual stresses in the patient's childhood. R. D. Laing suggests that the schizophrenic is forced to escape into psychosis by being placed in what he calls a _____ of _____.
46. (p. 476) Laing feels that the schizophrenic's strange thoughts and behavior are really an adaptation to an impossible environment. Laing and others believe the families of schizophrenics constantly engage in _____ communication, where messages place the listener in an unsolvable conflict.
47. (p. 477) Although attractive, environmental explanations of schizophrenia are incomplete. When the children of schizophrenic parents are raised away from their home environment, they are just as likely to become psychotic. Thus children may at least inherit a _____ for schizophrenia.
48. (p. 477) This is shown by studies with twins. If one identical twin becomes schizophrenic, there is a _____ percent chance the other will also.
49. (p. 477) If both parents are schizophrenic, a child has a _____ percent chance of developing the disorder; persons with a brother or sister and one parent who are schizophrenic run a _____ percent risk themselves; with a brother or sister the risk is _____ percent; and for fraternal twins the chances of mutual schizophrenia is about _____ percent.
50. (p. 477) Many scientists believe that psychosis may be based on _____ which cause the body to produce some substance similar to a psychedelic drug.
51. (p. 477) Two of the most likely candidates are _____ and _____.
52. (p. 477) This is supported by the fact that _____ and similar drugs produce effects that partially mimic the symptoms of psychosis.

53. (p. 477) Also the same drugs, _____, effective in treating LSD overdose are effective in the treatment of schizophrenia.
54. (p. 477) In the search for a biochemical basis for schizophrenia, some studies have focused on _____, a by-product of noradrenaline.
55. (p. 477) Adrenochrome has a chemical structure similar to _____, a psychedelic drug. It is normally neutralized in the body, but in schizophrenics it seems to accumulate.
56. (p. 477) Many researchers now believe that schizophrenia is directly related to overactivity in brain _____ systems.
57. (p. 477) Several points support this possibility. Early hints came from research noting that large doses of _____ produce symptoms almost identical to paranoid schizophrenia and also raise dopamine levels.
58. (p. 478) Another piece of the puzzle fell into place with the discovery that all major _____ drugs block the action of dopamine at receptor areas in the brain.
59. (p. 478) While later research has shown that no extra or abnormal amounts of dopamine exist in the brains of schizophrenics, they do have nearly _____ the normal number of dopamine _____. Thus there may be psychedelic effects from normal levels of dopamine in the brain.
60. (p. 479) Two basic forms of treatment for psychosis can be distinguished. The first, called _____, can be described as two people talking about one person's problems.
61. (p. 479) A second major approach to treatment is _____ (or _____) therapy.
62. (p. 479) One of the principal somatic treatments is _____, the use of drugs to control or alleviate the symptoms of emotional disturbance.
63. (p. 479) Most chemotherapy is used to combat _____, but may also be used to relieve the anxiety attacks and other discomforts of neurosis.
64. (p. 479) The three major classes of drugs used are _____, _____ (_____), and _____.
65. (p. 479) Minor tranquilizers _____ anxious or agitated persons, energizers improve the _____ of those who are depressed, and antipsychotics control _____ and other symptoms of psychosis.
66. (p. 479) While drugs have improved the chances of recovery from a psychiatric disorder, there are some drawbacks. First of all, drugs generally do not _____ mental illness. Patients may separate temporary improvement caused by a drug from improvement they consider genuine.

67. (p. 479) Also, there is the problem of side effects. For example, as many as _____ percent of patients taking major tranquilizers for extended periods develop _____, a neurological condition where patients develop rhythmical facial and mouth movements, as well as unusual movements of the limbs and other parts of the body.
68. (p. 479) Perhaps the most valid criticism of chemotherapy is the simple observation that it is _____.
69. (p. 480) The discovery of a class of chemicals in the brain known as _____ and related substances known as _____ has generated promise for the chemical cure of schizophrenia.
70. (p. 480) These naturally occurring brain proteins may directly alter disturbed emotional functioning by acting on the _____ system in the brain. This has been suggested by the dramatic behavior changes seen in patients treated with beta-endorphin, a synthetic version of the chemical.
71. (p. 480) Another principal somatic treatment is _____, abbreviated _____, in which convulsions are produced by electric current.
72. (p. 480) This is a rather drastic medical treatment used mainly for _____.
73. (p. 480) About _____ volts of electrical current are passed through the brain for slightly less than a second over a series of _____ to _____ sessions spread over _____ to _____ weeks.
74. (p. 480) Critics of ECT claim that _____ are often permanent and that there is evidence of occasional _____ from its use.
75. (p. 481) Proponents argue that evidence of damage comes mainly from studies done before _____, muscle _____, and use of _____ reduced chances of injury.
76. (p. 481) The most extreme type of somatic therapy is _____, a general term applied to any surgical alteration of the brain.
77. (p. 481) The best known psychosurgery is the _____, where the frontal lobes are surgically disconnected from other areas of the brain.
78. (p. 481) The original goal of this procedure was to _____ a person who had not responded to any other type of treatment.
79. (p. 481) Unfortunately, studies indicate it has very unpredictable results, and at the very least is _____, since damage to the brain is permanent.

80. (p. 481) For the past five to ten years, some _____ patients a year have been getting psychosurgery in the United States. Even a federal commission has concluded that it is acceptable with stringent controls: patients must give _____, _____ consent; _____ must be consulted in cases of children, criminals, or the involuntarily confined; and the institution at which surgery is performed must have a _____.
81. (p. 481) In the last 20 years, the resident population in large mental hospitals has been reduced by _____ - _____. Hospital stays are now held to a minimum through use of _____ - _____ policies in which patients are released as soon as possible and readmitted only if necessary.
82. (p. 482) A bright spot in the area of mental health care has been the passage of federal legislation to encourage creation of _____.
83. (p. 482) The most distinctive feature of these centers is an emphasis on _____.
84. (p. 483) These centers have made mental health services more accessible than ever before. Much of their work is made possible by _____, individuals who work under the supervision of more highly trained staff.
85. (p. 485) David Rosenhan gained entrance to mental hospitals by complaining of hearing voices. In _____ out of 12 tries, he and his colleagues were admitted with a diagnosis of _____.
86. (p. 485) Rosenhan spent from one to seven weeks in hospitals before being discharged and found that contact between staff and patients was very limited. Attendants and staff only spent an average of _____ percent of their time out of the glassed-in central compartment in the ward; daily therapist contact averaged about _____ minutes.
87. (p. 486) In a follow-up study, the staff of another hospital was warned that one or more pseudo-patients were going to try to gain admission. Among 193 candidates, _____ were labeled "fakes" and _____ more "suspicious" despite the fact that Rosenhan never sent any patients.
88. (p. 486) These findings carry an important message: _____ can be dangerous. It is more productive to label _____ than to label people.
89. (p. 487) Thomas Szasz has charged that medical concepts of disease have been wrongly applied to emotional problems. The "_____" as this is called, treats such problems as "diseases" with "symptoms" that can be "cured."
90. (p. 487) He prefers to view emotional disturbances as "_____ in _____," making the goal of therapy change and the individual a client.

91. (p. 487) He has focused attention on the important civil rights questions of involuntary commitment. He estimates that there are 750,000 persons in mental hospitals, _____ percent of them involuntarily.
92. (p. 487) R. D. Laing takes an even more extreme position. He feels that anyone adjusted to our "mad" world is in serious trouble. He set up an "anti-hospital" in London called _____.
93. (p. 487) It is a self-governing communal arrangement where psychotics are encouraged to explore the limits of their break from reality as a means of establishing a more honest _____ with the world.

SELF TEST

- Match each of the following terms with the appropriate definition.

| | |
|----------------------------|--|
| a. depressive delusion | _____ person feels they have committed some horrible crime or sinful deed |
| b. somatic delusion | _____ individual thinks they are extremely important |
| c. delusion of grandeur | _____ individual feels their body is rotting away or emitting foul odors |
| d. delusion of influence | _____ person feels others are out to get them |
| e. delusion of persecution | _____ person feels they are being controlled by other persons or unseen forces |
| f. delusion of reference | _____ person gives personal significance to unrelated events |
- Among psychotics, the most common hallucination is
 - hearing voices.
 - seeing objects fly around the room.
 - seeing places or people related to the source of the psychosis.
 - feeling vibrations.
- Which of the following is a neurological side effect of extended major tranquilizer usage?
 - enkephalin
 - mutism
 - senility
 - tardive dyskinesia
- True-False. Typically, psychotic behavior occurs in brief episodes rather than patients displaying bizarre behaviors nearly all the time.
- Those individuals with slow developing, long-term thought disorders and emotional disturbances are frequently classified as
 - schizotypal personality disorders.
 - manic-depressive affective psychosis.
 - catatonic psychosis.
 - senile psychosis.

6. General paresis is an example of
 - a. organic psychosis.
 - b. functional psychosis.
 - c. senile psychosis.
 - d. paranoid psychosis.
7. Circle those of the following which are the major classes of drugs used in chemotherapy.

| | |
|------------------------|------------------------|
| a. psychedelics | e. energizers |
| b. minor tranquilizers | f. hallucinogenics |
| c. anti-psychotics | g. major tranquilizers |
| d. depressants | h. tardives |
8. True-False. David Rosenhan and his associates found it very difficult to gain admission to mental hospitals by faking symptoms.
9. True-False. Paranoids are rarely treated or admitted to mental hospitals.
10. Approximately what percent of patients admitted to mental hospitals suffer from affective reactions (schizoaffective disorders)?
 - a. 6
 - b. 11
 - c. 14
 - d. 19
11. List the three types of affective psychoses (schizoaffective disorders).

12. True-False. A psychosis produced by mercury poisoning would be classified as a functional disorder.
13. Approximately _____ of all admissions to mental hospitals are diagnosed as schizophrenic.
 - a. 1/3
 - b. 1/2
 - c. 2/3
 - d. 3/4
14. Which type of schizophrenia develops gradually (usually starting in adolescence)?
 - a. simple
 - b. hebephrenic
 - c. catatonic
 - d. paranoid
15. Which type of schizophrenia is marked by almost complete personality disintegration resulting in silliness, laughter, bizarre and often obscene behavior?
 - a. simple
 - b. hebephrenic
 - c. catatonic
 - d. paranoid

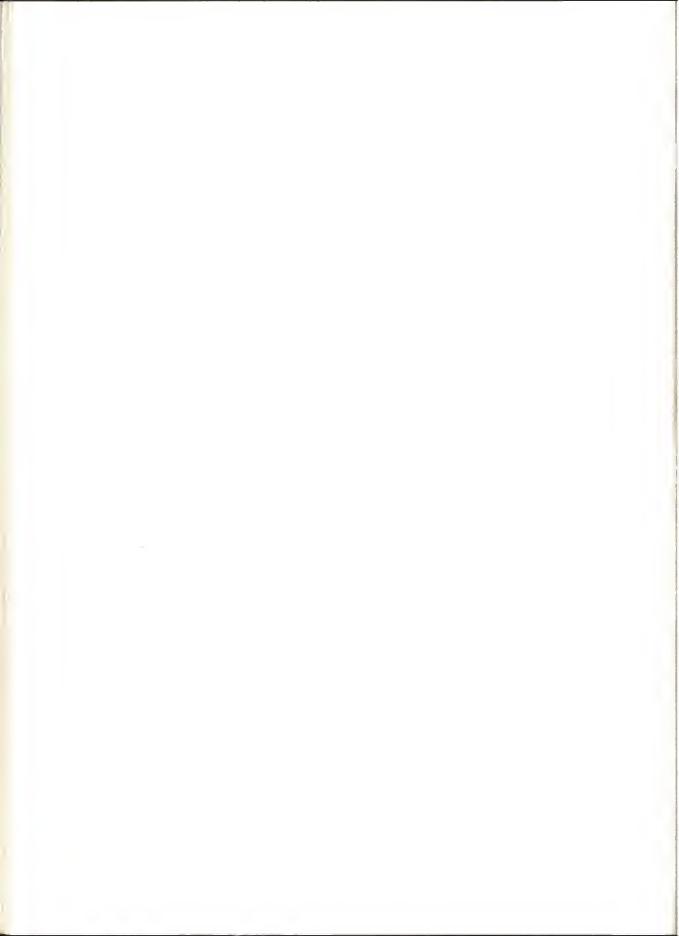
16. True-False. Waxy flexibility refers to the glassy-eyed look of catatonic schizophrenics.
17. In _____ schizophrenia, the person seems to be in a state of panic which produces a stuporous condition.
 - a. simple
 - b. hebephrenic
 - c. catatonic
 - d. paranoid
18. The most common form of schizophrenic disorder is
 - a. simple.
 - b. hebephrenic.
 - c. catatonic.
 - d. paranoid.
19. True-False. There are only minor differences between the symptoms of paranoia and paranoid schizophrenia.
20. True-False. Although difficult to treat, the symptoms used in classifying schizophrenic patients are very straightforward. Patients can be easily classified into one or the other of the categories.
21. Evidence is mounting that the biochemical basis for schizophrenia may be linked with which system?
 - a. dopamine-limbic
 - b. noradrenaline-cortical
 - c. tardive dyskinesia
 - d. prefrontal lobes
22. ECT is used primarily in treating
 - a. mania.
 - b. depression.
 - c. paranoia.
 - d. psychosis.
23. If one identical twin becomes schizophrenic, the chance of the other twin becoming schizophrenic is
 - a. 25%.
 - b. 50%.
 - c. 75%.
 - d. 100%.
24. Which of the following drugs are effective in the treatment of schizophrenia?
 - a. amphetamines
 - b. phenothiazines
 - c. adrenochromes
 - d. psychedelics
25. True-False. Community mental health centers emphasize curing mental illness.

26. Circle those of the following that are criticisms which have been leveled at chemotherapy.
- only temporarily relieves symptoms
 - drug side-effects
 - overuse
 - expense
 - interferes with productive psychotherapy
27. True-False. Schizophrenia is the most frequently occurring psychosis.
28. R. D. Laing applies which of the following terms to the understanding of schizophrenia?
- position of checkmate
 - mutism
 - disfunctionality
 - double bind communication
29. True-False. Treatment of schizophrenia with enkephalins and endorphins has produced dramatic recovery in some cases.
30. True-False. It now appears that schizophrenics may have an overabundance of dopamine in their limbic systems, thus accounting for their bizarre abnormal behavior.
31. True-False. Manic behavior can be viewed as a reaction of individuals trying to escape depression and is therefore an extension of depression itself.
32. True-False. Schizophrenia is caused solely by environmental stress at an early age.
33. Thomas Szasz believes that, of the 750,000 persons in mental hospitals, _____ percent are being unjustifiably and involuntarily confined.
- 20
 - 40
 - 60
 - 90
34. What percentage of our population will become schizophrenic?
- 1
 - 5
 - 7
 - 10
35. In attempting to discover the biological basis for schizophrenia, many studies have focused on
- adrenochrome.
 - chromalin.
 - metachromalin.
 - adrenoerisol.

36. True-False. The true paranoid suffers from hallucinations, emotional excesses, and personality disintegration.
37. Probably the greatest cause of organic psychosis is
 - a. senile psychosis.
 - b. general paresis.
 - c. affective psychosis.
 - d. paranoia.

ESSAY QUESTIONS

1. "Schizophrenia is a major health problem in the United States." Discuss this statement, describing the types of schizophrenia and the major views on its origins.
2. Discuss the advantages and disadvantages of each of the three medical approaches to the treatment of psychosis.
3. Describe the personal experiments of David Rosenhan and their implications for the current diagnosis and treatment of mental illness.
4. State the position on mental illness taken by Laing and Szasz. What are your opinions on their views?



Insight Therapy 22

TERMS AND CONCEPTS

- psychotherapy
 - insight
 - action
 - directive
 - non-directive
 - individual
 - group
- trepanning
- demonology
- exorcism
- hysteria
- psychoanalysis
- free association
- dream analysis
 - manifest content
 - latent content
 - dream symbols
- analysis of resistance
- analysis of transference
- spontaneous remission
- humanistic therapies
 - client-centered
 - non-directive approach
 - empathy
 - authentic
 - reflection

- rational-emotive therapy (RET)
 - activating experience
 - emotional consequence
 - directive approach
- existential therapy
 - logotherapy
 - confrontation
 - encounter
- group therapy
 - psychodrama
 - Gestalt therapy
 - encounter groups
 - sensitivity training
- T-groups
 - marathon
 - facilitator
- Transactional Analysis (TA)
 - ego-states
 - Child
 - Parent
 - Adult
 - crossed transactions
 - ulterior transactions
 - games
 - life scripts
- emotional rapport
- catharsis

IMPORTANT INDIVIDUALS

Phillippe Pinel
Sigmund Freud
H. J. Eysenck
Carl Rogers
Albert Ellis
Rollo May

Victor Frankl
J. L. Moreno
Fritz Perls
Eric Berne
Joseph Weizenbaum
Kenneth Colby

PROGRAMMED REVIEW

1. (p. 490) _____ is any psychological technique designed to facilitate positive changes in a person's personality, behavior, or adjustment.
2. (p. 490) _____ therapies foster a deeper understanding of the assumptions, beliefs, emotions, and conflicts underlying a problem.
3. (p. 490) _____ therapies focus on directly changing troublesome habits and behavior.
4. (p. 490) In _____ therapies, the therapist guides the client strongly, giving instructions, offering interpretations, posing solutions, and sometimes even making important decisions for the client.
5. (p. 490) _____ approaches place responsibility for the course of therapy on the client; it is up to the client to discover his or her own solutions.
6. (p. 490) _____ therapies proceed on a one-to-one basis between client and therapist.
7. (p. 490) In _____ therapy, individual problems are resolved by making use of the special characteristics of the group setting.
8. (p. 490) Attempts to cure psychological problems have occurred throughout history. During the Stone Age, spirits were released from the head by a process called _____, where a hole was bored, chipped, or bashed into the skull.
9. (p. 490) During the Middle Ages, treatment for the mentally ill in Europe focused on _____ with the major technique being _____.
10. (p. 491) Finally, a more compassionate view of the mentally ill emerged after 1793 when _____ changed the Bicetre Asylum in Paris from a "mad house" to a mental hospital by personally _____ the inmates.
11. (p. 491) The first true psychotherapy was developed around the turn of the century by _____.

12. (p. 492) Freud sought to understand and treat cases of _____, where physical symptoms like paralysis or numbness occur without known physical cause.
13. (p. 492) Freud's form of therapy was called _____.
14. (p. 492) Freud's theory stressed that _____ memories, motives, and conflicts—especially instinctual drives for sex and aggression—were the cause of neurosis.
15. (p. 492) Freud relied on four basic techniques to uncover the unconscious roots of neurosis. One of these, _____, required the patient to say whatever came to mind without regard for whether it made sense, was painful, or embarrassing.
16. (p. 492) The purpose of free association is to _____ so that unconscious material may emerge.
17. (p. 492) Another technique, _____, Freud considered an unusually good additional means of tapping the unconscious.
18. (p. 492) In analyzing dreams, Freud distinguished between the _____ (obvious, visible) content and the _____ (hidden) content.
19. (p. 493) To fully appreciate the unconscious message of a dream, Freud sought to reveal the latent meaning by interpreting _____.
20. (p. 493) When free associating or describing dreams, the patient may _____ talking or thinking about certain topics. Such _____ are said to reveal particularly important unconscious conflicts.
21. (p. 493) The individual undergoing psychoanalysis may _____ feelings to the therapist that relate to important past relationships with others.
22. (p. 493) This transference effect is considered a prime opportunity to help the patient undergo an emotional _____, where reexperienced repressed emotions can be recognized and understood.
23. (p. 493) In its original form psychoanalysis required _____ to _____ therapy sessions a week for up to _____ years.
24. (p. 493) The development of newer, more streamlined psychotherapies is in part due to the huge amounts of time and money required for the original technique. Also they stem from questions about the _____ of psychoanalysis.
25. (p. 493) Eysenck has suggested that psychoanalysis takes so long that patients improve due to the mere passage of time. This improvement is called _____.

26. (p. 494) The goal of Freudian therapy is _____. The humanistic therapies seek to help people make full use of their _____.
27. (p. 494) Carl Rogers has developed a therapy called _____ - _____ therapy.
28. (p. 494) Rogers believes that the psychoanalyst tends to take a position of authority about what is wrong with the patient. He believes that the psychoanalyst's interpretations of what is right or valuable may not be so for the client. Thus, Rogers uses a _____ - _____ approach in that the client determines what will be discussed during each session.
29. (p. 494) The therapist's job is to create an "atmosphere of growth" by maintaining four basic conditions. First the therapist offers the client _____ - _____ the client is accepted totally.
30. (p. 494) Second, the therapist attempts to achieve genuine _____ for the client by trying to view the world through the client's eyes.
31. (p. 494) As a third condition, the therapist strives to be _____ in his or her relationship with clients.
32. (p. 494) Fourth, rather than making interpretations, posing solutions, or offering advice, the therapist _____ the client's thoughts and feelings.
33. (p. 495) Another humanistic therapy is that of Albert Ellis called _____ - _____ therapy, abbreviated _____.
34. (p. 495) Ellis assumes that people become unhappy and develop self-defeating habits because of _____ beliefs.
35. (p. 495) Ellis analyzes the situation in this way: The person assumes the cause of the _____ to be the _____. Rational-emotive therapy shows the client the true cause of the difficulty, the client's irrational and unrealistic belief.
36. (p. 495) Rational-emotive therapy takes a very _____ approach, since the therapist may directly attack the client's logic, challenge his thinking, or confront him with evidence contrary to his beliefs.
37. (p. 495) _____ therapy focuses on problems of existence or "being in the world." Its goals are self-knowledge and self-actualization.
38. (p. 495) Existential therapy emphasizes _____. Through choices one can become the person he or she wants to be.
39. (p. 495) Existential therapist _____ has expressed deep concern about the loss of individual freedom. His therapy seeks to restore meaning and vitality to life so that the individual has the courage to accept the responsibility of making rewarding and socially constructive choices.

40. (p. 495) One example of existential therapy is Victor Frankl's _____.
41. (p. 495) Frankl developed his approach on the basis of experiences in a _____.
42. (p. 495) Like most existential therapists, Frankl uses a very flexible approach centered around _____ in which the person is challenged to examine the quality of his or her existence and choices, and to _____ the unique and intense here-and-now interaction of two human beings.
43. (p. 496) In _____ a person can act out or experience problems in addition to talking about them. Also support is provided by other members who share similar problems.
44. (p. 496) One of the first group approaches was developed by J. L. Moreno, who called his technique _____. Through this an individual play-acts roles and dramatic incidents resembling those that cause problems in real life.
45. (p. 496) Another group approach often associated with _____ is built around the idea that perception or awareness becomes disjointed and incomplete in the maladjusted individual.
46. (p. 496) Perls' technique, called _____ therapy, emphasizes that emotional health comes from getting in touch with what you want to do—not what you should do, ought to do, or should want to do.
47. (p. 497) Above all else, Gestalt therapy emphasizes _____ experience.
48. (p. 497) Sensitivity training or encounter groups were first developed in _____ at the _____ in Bethel, Maine.
49. (p. 497) At first they were called _____.
50. (p. 497) _____ groups tend to be less confrontive than _____ groups.
51. (p. 498) An encounter group may meet only once or twice, many times, or in a _____ lasting 18 hours or more.
52. (p. 498) The emphasis in encounter groups is on tearing down _____ and _____ through discussion that can be brutally honest.
53. (p. 498) Trained group leaders in encounter groups are called _____.
54. (p. 498) Another example of group therapy is _____, which seeks to help people become more aware of themselves, their interactions with others, and their life patterns or scripts.

55. (p. 498) The personality scheme of TA proposed by Eric Berne postulates three basic parts or _____.
56. (p. 498) The _____ is a carry-over from youth that can be primitive, impulsive, demanding, creative, playful, or manipulative.
57. (p. 498) According to Berne we also carry another product of our past, the _____ ego-state which is an internal record of all the messages received from one's parents as personality developed and is very evaluative and restrictive.
58. (p. 498) The _____ is a mature and rational decision-making part of the personality that, when in charge, allows an individual to explore alternatives and their consequences and decide which ego-state is needed.
59. (p. 498) Using this ego-state system, troubled relationships are seen as _____ transactions, where a message sent from one ego-state is answered by statements from another ego-state.
60. (p. 499) Also, in an _____ transaction, the exchange appears to take place on one level, but actually takes place on another.
61. (p. 499) Ulterior transactions form the basis of _____, indirect ways of communicating such as the "if it weren't for you" game that is very common in marriage.
62. (p. 499) Also, certain games perpetuate the _____, a plan or drama that a person's life follows, usually written by parents and others.
63. (p. 499) In a survey of some 400 studies of psychotherapy and counseling, Smith and Glass found a modest but consistent _____ for therapy compared to no treatment. Though based on averages, overall it was effective for more people than not.
64. (p. 500) All psychotherapies include some combination of several important goals. To accomplish these goals, all psychotherapists offer at least three qualities. The first is a _____ between client and therapist.
65. (p. 500) The basis of this relationship is _____ based on warmth, understanding, empathy, etc.
66. (p. 500) Therapists also offer a protected setting in which emotional _____ or release can take place.
67. (p. 500) All therapies to some extent offer an _____ or _____ for the suffering the client has experienced and propose action which if followed will end this suffering.

68. (p. 502) In determining when you should seek professional help, several guidelines can be suggested. The first is: if your level of psychological discomfort becomes comparable to a level of _____ discomfort that would cause you to see a dentist or physician.
69. (p. 502) Another sign is the occurrence of _____ in observable behavior like the quality of your work, your rate of absenteeism, your use of drugs, or your relationships with others who are important to you.
70. (p. 502) If you find friends or relatives making suggestions that you seek professional help, they may be seeing things more _____ than you.
71. (p. 502) Definitely seek help if you have persistent or disturbing _____ thoughts or impulses.
72. (p. 502) There are several ways of seeking professional help. One of these is to look in the "_____." These listings will put you in touch with individuals in private practice.
73. (p. 502) Most counties and many cities offer services through _____ or _____ centers listed in the phone book.
74. (p. 502) Many cities have _____ organized to keep listings of therapists and services.
75. (p. 502) If you are a student, many schools have special counseling facilities. Also, some low cost "outreach" clinics make their presence known to the public through _____.
76. (p. 503) A balanced look at psychotherapies suggests that all _____ are about equally successful, but all _____ are not.
77. (p. 503) In trying to help someone, there appear to be two essential conditions. These are (1) an _____ of the person and an unshakable positive regard for them as a human, and (2) a capacity to communicate your understanding of the discomfort the person feels. We may call this second quality _____.
78. (p. 503) Several points may help you when a friend wants to talk about a problem. First, you should practice _____; a person with a problem needs to be heard.
79. (p. 504) By focusing on the person's _____ you can avoid making them defensive. This helps permit the free outpouring of emotion that is the basis for catharsis.
80. (p. 504) Avoid giving _____. It is not unreasonable to do so when asked, but beware of the trap described by Eric Berne, "Why don't you? Yes, but."

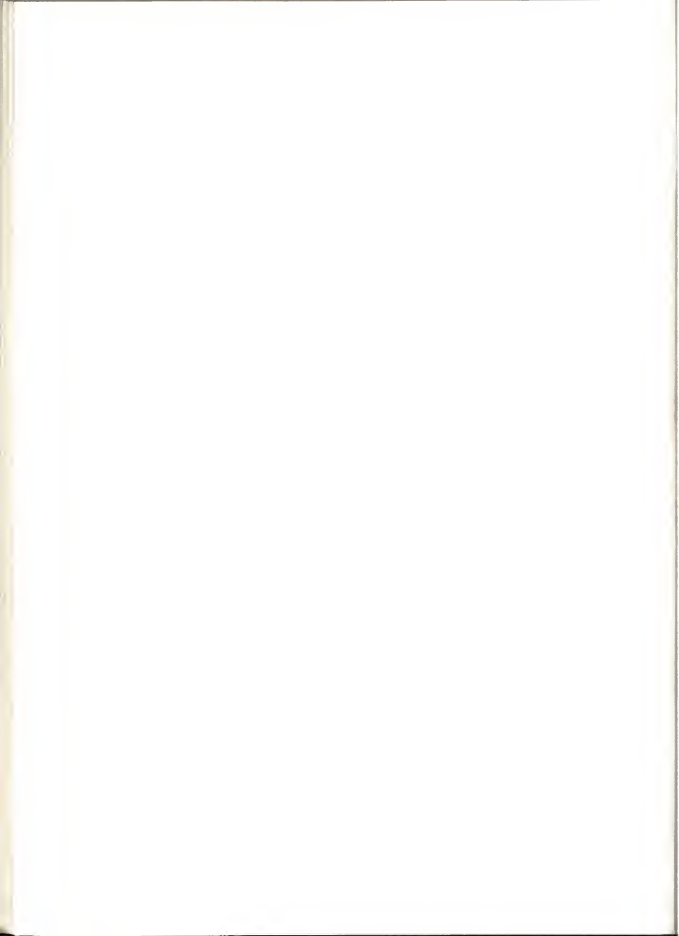
6. True-False. When psychotherapy has been effective in changing human thinking or behavior, we speak of spontaneous remission.
7. The term unconditional positive regard is most closely associated with which approach to therapy?
 - a. client-centered
 - b. psychoanalysis
 - c. existential
 - d. Gestalt
8. Which of the following therapists would be least likely to give you suggestions on how to solve an emotional problem?
 - a. Perls
 - b. Frankl
 - c. Berne
 - d. Rogers
9. Which of the following therapies stresses confrontation between client and therapist?
 - a. rational-emotive
 - b. client-centered
 - c. Gestalt
 - d. existential
10. The goal of psychoanalysis is
 - a. adjustment.
 - b. self-knowledge.
 - c. self-actualization.
 - d. rebuild connected wholes.
11. True-False. According to Berne, one way to overcome destructive life scripts is to develop new ways of communicating called "games."
12. According to Perls, emotional health comes from getting in touch with what you
 - a. should do.
 - b. ought to do.
 - c. want to do.
 - d. should want to do.
13. True-False. Humanistic therapies view maladaptive behaviors as symptoms of deeper, underlying problems rather than the real problem.
14. True-False. One of the first group approaches was developed by Moreno, who called his technique sensitivity training.
15. Terms such as awareness training, dream work, the hot seat, and the empty chair refer to which of the following therapies?
 - a. Gestalt
 - b. transactional analysis
 - c. encounter
 - d. sensitivity

16. True-False. There are no dangers involved in participating in an encounter group.
17. Logotherapy is an example of which of the following approaches to therapy?
 - a. rational
 - b. client-centered
 - c. existential
 - d. psychoanalysis
18. Of the following therapies, which focuses on the analysis of personality ego-states?
 - a. Gestalt
 - b. transactional analysis
 - c. rational
 - d. client-centered
19. True-False. The Parent is a mature and rational decision-making part of the personality according to TA.
20. True-False. A facilitator is a therapist who tries to understand crossed transactions.
21. The major disorder that Freud treated with psychoanalysis was
 - a. schizophrenia.
 - b. hysteria.
 - c. paranoia.
 - d. traumatic neurosis.
22. True-False. Psychoanalysis as originally conducted by Freud is still in widespread use today.
23. Of the following, who views crossed and ulterior transactions as the source of human relational problems?
 - a. Freud
 - b. Berne
 - c. Rogers
 - d. Frankl
24. True-False. Psychotherapy techniques tend to be about equally successful in helping clients with emotional/behavioral problems.
25. True-False. Psychotherapy is an art, not a science.
26. True-False. Encounter and sensitivity groups are not really psychotherapies.

ESSAY QUESTIONS

1. Compare and contrast the various individual therapies discussed in your text. Describe their major emphases, techniques, and important individuals associated with each.

2. Compare and contrast the various group therapies discussed in your text. Describe their major emphases, techniques, and important individuals associated with each.
3. Discuss the question of how to know whether you should seek professional help. Rely on those points described in the application section as a guideline. Then discuss where to go to locate professional services.
4. Relying upon the application section, discuss how you can best help a friend who has an emotional/psychological problem.



Behavior Modification 23

TERMS AND CONCEPTS

behavior therapists
classical conditioning
 conditioned stimulus (CS)
 unconditioned stimulus (UCS)
 unconditioned response (UCR)
 conditioned response (CR)
aversion therapy
antabuse
response-contingent
transfer
generalization
desensitization
hierarchy
reciprocal inhibition
counter-conditioning

vicarious desensitization
implosive therapy
flooding
operant conditioning
positive reinforcement
nonreinforcement
extinction
punishment
shaping
stimulus control
time-out
tokens
target behaviors
token economy
covert sensitization
behavioral contract

IMPORTANT INDIVIDUALS

Ivan Pavlov
Roger Vogler

Joseph Wolpe
B. F. Skinner

PROGRAMMED REVIEW

1. (p. 508) Psychologists called _____, who use behavior modification, feel that insight or understanding of one's problems is unnecessary. Instead these therapists try to directly change _____.

2. (p. 509) Behavior modification is based on one principal assumption: people have _____ to be the way they are.
3. (p. 509) Consequently if they have learned habits that cause problems, then they can _____ them, or _____ more appropriate habits.
4. (p. 509) Behavior modification is a term referring to any attempt to use the learning principles of _____ or _____ conditioning to change human behavior.
5. (p. 509) Classical conditioning is the process of learning originally studied by _____.
6. (p. 510) Through this process a previously neutral stimulus, the _____, is followed by a stimulus, the _____, which always produces a response, the _____.
7. (p. 510) Eventually the conditioned stimulus begins to produce the response directly. The response is then called a _____.
8. (p. 510) Behavior therapists may use the principles of classical conditioning to associate discomfort, called an _____, with a bad habit.
9. (p. 510) Use of this technique is called _____ and is one form of behavior modification.
10. (p. 510) When an aversion is paired with a bad habit such that the habit no longer occurs or is replaced by a competing response, a _____ has developed.
11. (p. 510) Psychologist Roger Vogler uses aversion therapy with alcoholics who have tried almost everything to stop drinking, including therapy with _____, a drug that causes an alcoholic to become violently nauseated after drinking.
12. (p. 510) Vogler associated painful, but non-injurious _____, with the intake of alcohol.
13. (p. 510) This _____-_____ shock takes the immediate pleasure out of drinking and causes the patient to develop a conditioned aversion to drinking.
14. (p. 511) One problem with successful treatment is getting the conditioned aversion to _____ or _____ from the therapy situation to the real world.
15. (p. 511) One way to improve transfer is to make the therapy situation resemble as much as possible the conditions of the real world. Vogler has done this by making the therapy situation an actual _____.

16. (p. 511) Aversion therapy is used as a last resort. Vogler also trains alcoholics to discriminate _____ levels (so clients can tell how drunk they are), teaches them alternatives to drinking, and offers alcohol education and general counseling.
17. (p. 511) Also, alcohol abusers are _____ as they go from sober to drunk, then later shown the sequence. Apparently, few people have any idea of how unattractive they are when drunk.
18. (p. 512) _____, a reduction in fear, is usually brought about by gradually approaching a feared stimulus while maintaining complete relaxation.
19. (p. 512) An ordered set of steps called a _____ is used to allow the individual to _____ to gradual approximations of the end, desired behavior.
20. (p. 512) Desensitization is also based on the principle of _____ developed by Joseph Wolpe.
21. (p. 512) Reciprocal inhibition means that one emotional state can _____ the occurrence of another.
22. (p. 512) Desensitization is primarily used to help people unlearn or _____ - strong anxieties or _____.
23. (p. 512) Desensitization usually involves three steps. First, the patient and therapist _____ a _____, a list of fear-provoking situations involving the phobia and ranging from the least disturbing to the most disturbing situation.
24. (p. 512) Second, the patient is taught _____ that produce _____.
25. (p. 512) Once the patients are relaxed, they proceed to the third step by trying to _____ the _____ disturbing item on their hierarchy.
26. (p. 512) In situations where it is impractical for the patient to actually practice the steps, desensitization works almost as well when a patient _____ each of the steps in the hierarchy.
27. (p. 512) In some cases the problem can be handled by having clients observe models who are performing the feared behavior. This is known as _____.
28. (p. 513) For relatively mild fears, a rapid desensitization technique called _____ may be used.
29. (p. 513) Here the client is _____ with anxiety-provoking images in a "safe" setting until such images lose their ability to unleash the anxiety they cause at first.

30. (p. 514) The principles of _____ conditioning have been developed by _____ and his associates mostly through laboratory research with animals.
31. (p. 514) There are several principles used with humans. One of these is _____, the process whereby an action that is followed by reward will occur more frequently.
32. (p. 514) The principle of _____ means that an action not followed by reward will occur less frequently.
33. (p. 514) If the response is not followed by reward after it has been repeated many times, it will go away. This is the process of _____.
34. (p. 514) If a response is followed by discomfort, or an undesirable effect, the response will be suppressed (but not necessarily extinguished). This defines the process of _____.
35. (p. 514) _____ means rewarding actions that are closer and closer approximations to a desired response.
36. (p. 514) Responses tend to come under the control of the situation in which they occur. When they do we speak of _____.
37. (p. 514) A _____ procedure usually involves removing the individual from a situation in which reinforcement occurs, thus preventing reward from following an undesirable response.
38. (p. 514) Most frequently occurring human behaviors lead to some form of reward. An undesirable response can be eliminated by _____ and _____ the rewards which maintain it.
39. (p. 515) Most of the rewards which maintain human behavior are more subtle than food, money, etc. Rather they include _____, _____, and _____.
40. (p. 515) This can be demonstrated in classroom situations where teachers give attention in various forms when misbehavior occurs. When attention took the form of saying things such as "Sit down!" the frequency of misbehavior _____.
41. (p. 515) Nonreward and extinction can eliminate many of these problem behaviors. For example, in the classroom example when misbehaving children were _____ and attention was given to children not misbehaving, misbehavior _____.
42. (p. 516) Another strategy used in institutions is _____, refusing to reward maladaptive responses by refusing to play the attention game.

43. (p. 516) Another form of time out is to _____ an individual immediately from the setting in which an undesirable response occurs so that the response will not be rewarded.
44. (p. 516) A rapidly growing approach to therapy is based on the use of _____, symbolic rewards that can be exchanged for real rewards.
45. (p. 516) So that incentives and rewards will have maximum impact, the therapist selects specific _____ that could or should be improved.
46. (p. 516) Full-scale use of tokens in an institutional setting leads to the development of a _____.
47. (p. 516) As with aversion therapy, generalization to the outside world can be a problem in token communities. The most effective token economies are those that ultimately depend on _____ such as recognition and approval.
48. (p. 519) Behavior modification techniques can be used by the individual to deal with some types of common problems. For example, a common method of using aversion therapy to reduce smoking is to have the smoker sit in a small unventilated booth and smoke _____ or _____ of cigarettes nonstop.
49. (p. 519) The technique of _____ can be applied by writing a series of disturbing and disgusting scenes related to the problem and then frequently imagining those scenes during the day.
50. (p. 520) At least two _____ - _____ techniques can be suggested (given that thoughts alone can cause trouble). One is to snap a rubber band attached to your wrist each time you catch yourself thinking the upsetting image or thought.
51. (p. 520) Another technique is to reserve privacy and time each day (at first) to deliberately think the unwanted thought. As you begin to form the thought, shout "stop!" Repeat this _____ to _____ times the first two or three days, then switch to shouting "stop!" covertly rather than aloud.
52. (p. 520) The key to desensitization is _____. One way to learn this is to practice tightening different muscles for five seconds and then letting go.
53. (p. 520) In developing a hierarchy to overcome a fear by relaxation, make a list of situations related to the fear that makes you anxious. Try to list at least _____ situations.
54. (p. 521) If you can vividly picture and imagine yourself in the first situation of your hierarchy without a noticeable increase in muscular tension at least _____, proceed to the next card you have constructed. Be sure to relax yourself between cards.

55. (p. 521) Each day stop when you reach a card that you cannot visualize without tension after _____ attempts. On each successive day, begin one or two cards before the one on which you stopped the previous day. Eventually you can learn to control the fear.
56. (p. 521) To increase the frequency of any behavior, several steps can be suggested. First choose a _____ behavior; that is, identify what you want to change.
57. (p. 521) Then, record a _____ so you'll know how much time you currently spend performing the target behavior.
58. (p. 521) Next, establish _____. Make them realistic and set them daily so that they add up to a weekly total.
59. (p. 521) You also need to choose _____ that you can reward yourself with for making your daily goals.
60. (p. 521) Be sure to _____ your progress. Keeping accurate records of the amount of time spent each day on the desired activity can help.
61. (p. 521) Finally, _____ successes. If you meet your daily goal, collect your reward. But be honest and skip the reward if you fall short. Do the same for your weekly goal.
62. (p. 521) The key to any self-management program is accurate _____ - _____. This was demonstrated by an investigation in which students who recorded their study time and graphed their study behavior earned better grades than those who did no recording, even though no rewards were offered.
63. (p. 521) In a _____ you state a specific goal to be achieved and the rewards you will receive for completion, along with the privileges you will forfeit or punishments you must accept if you fail to complete the goal. It should be signed by you and someone with whom you are close.
64. (p. 522) The issues of control and personal freedom involved in the involuntary use of behavior modification has prompted considerable controversy. B. F. Skinner argues that everyone is already controlled by the environment and that such control might just as well be _____ and _____ instead of haphazard.
65. (p. 522) Traditional psychotherapists and other opponents of behavior modification claim that it removes the _____ of psychological problems without dealing with their _____. Behavior modifiers counter by saying the _____ is the problem, and _____ is the cause.

SELF TEST

1. Behavior modification is based upon which of the following principle assumptions?
 - a. conflicts between the conscious and unconscious produce maladaptive behaviors
 - b. habits that cause problems are learned and therefore can be unlearned
 - c. the thwarting of self-actualization processes produces abnormal ego-states
 - d. insight is the key to normal adjustment

In aversion therapy, an aversive event such as an electric shock is presented when the undesirable behavior occurs such as drinking alcohol. Refer to this example in answering the following questions.

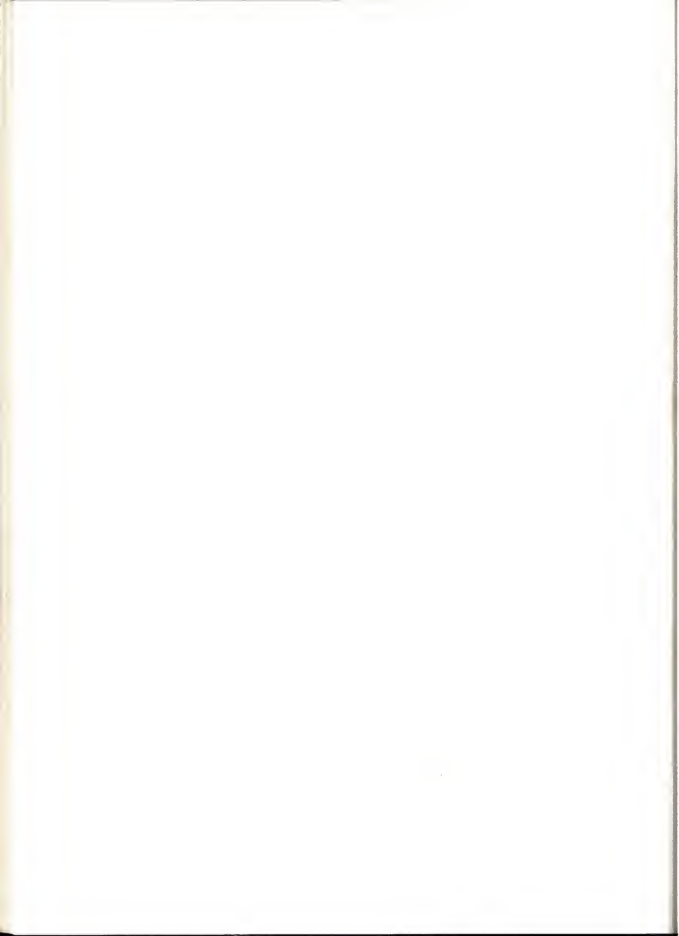
2. The electric shock could be called a (an)
 - a. conditioned stimulus.
 - b. unconditioned stimulus.
 - c. conditioned response.
 - d. unconditioned response.
3. The pain of the shock and its physiological consequences could be called a (an)
 - a. conditioned stimulus.
 - b. unconditioned stimulus.
 - c. conditioned response.
 - d. unconditioned response.
4. In this example, alcohol could be called a (an)
 - a. conditioned stimulus.
 - b. unconditioned stimulus.
 - c. conditioned response.
 - d. unconditioned response.
5. When a conditioned aversion to alcohol develops, discomfort in drinking the alcohol could be called a (an)
 - a. conditioned stimulus.
 - b. unconditioned stimulus.
 - c. conditioned response.
 - d. unconditioned response.
6. The above example exemplifies the work of which of the following?
 - a. Vogler
 - b. Wolpe
 - c. Lovaas
 - d. Skinner
7. True-False. Desensitization allows patients to adapt to a hierarchy of feared stimuli.
8. The technique by which clients are flooded with anxiety-provoking images for the treatment of phobias is known as
 - a. vicarious desensitization.
 - b. behavioral contracting.
 - c. implosive therapy.
 - d. time-out conditioning.

9. Aversion therapy is usually arranged so that the aversion is _____ -
a. response
b. problem
c. solution
d. stimulus
10. Desensitization is based on the principle of
a. retroactive inhibition.
b. proactive inhibition.
c. reactive inhibition.
d. reciprocal inhibition.
11. _____ involve a written agreement signed by you outlining a specific behavior to be changed and the rewards and punishments to be applied.
a. Token economies
b. Behavioral contracts
c. Implosive therapies
d. Systematic desensitizations
12. Of the following, which disorder is usually treated by desensitization?
a. depression
b. phobia
c. paranoia
d. hysteria
13. True-False. Desensitization in which the patient imagines each of the steps in the hierarchy is almost as effective as actually experiencing each step.
14. True-False. Experiments have shown that classroom misbehavior increases when teachers say things like, "sit down!" to misbehaving children.
15. True-False. Most human behavior is maintained by primary reinforcers like food and water.
16. When a child misbehaves in order to gain attention, an effective way of decreasing this misbehavior is to
a. ignore the child when they misbehave.
b. be reinforcing and kind to the child when they misbehave.
c. direct negative statements at the child when they misbehave.
d. give the child what they desire so they will no longer misbehave.
17. True-False. A variation of nonreinforcement is the time-out procedure whereby an individual is removed from a situation in which reinforcement occurs.
18. A rapidly growing approach to therapy is based on the use of _____, symbolic rewards that can be exchanged for real rewards.
a. tokens
b. symbolia
c. points
d. chips

19. True-False. The process of gradually rewarding closer approximations to a final desired response is called sensitization.
20. Tokens are used in reward and punishment procedures to change specific actions called
 - a. contingent responses.
 - b. target behaviors.
 - c. sequential acts.
 - d. unconditioned responses.
21. When responses come under the control of the situation in which they occur, we speak of
 - a. stimulus dominance.
 - b. response control.
 - c. stimulus cueing.
 - d. stimulus control.
22. True-False. Punishment extinguishes behavior.
23. Of the following, which is a challenging problem in the use of behavior modification techniques?
 - a. ineffectiveness with some personality types
 - b. lack of sound theoretical base
 - c. poorly defined connections between applications and basic research
 - d. difficulties of generalization of results from the therapy setting to the real world
24. True-False. Behaviorists feel that insight therapies only work because therapists subtly reward patients with approval and attention.
25. True-False. B. F. Skinner argues in his book, *Beyond Freedom and Dignity*, that all human behavior is controlled by the environment; in short, man has no "free will."

ESSAY QUESTIONS

1. Discuss the different behavior modification techniques you might use in attempting to stop drinking alcohol.
2. How does the issue of freedom of choice relate to behavior modification? Discuss the views of behavior modification proponents and opponents as related to this question. What are your own opinions?
3. (OPTIONAL) Choose a behavior you wish to change and apply behavior modification principles. Keep a record of the design, execution, and progress of your efforts.



Human Sexuality 24

TERMS AND CONCEPTS

primary sexual characteristics
secondary sexual characteristics
menarche
menopause
sex hormones
gonads
estrogen
androgen
testes
ovaries
adrenal glands
testosterone
hermaphroditism
progesterin
androgenital syndrome
gender identity
sex-role socialization
sex roles
instrumental behaviors
expressive behaviors
orgasm

erogenous zones
nocturnal emissions
castration
masturbation
sexual response phases
 excitement
 plateau
 orgasm
 resolution
ejaculation
refractory period
primary impotence
secondary impotence
sensate focus
premature ejaculation
squeeze technique
retarded ejaculation
general sexual dysfunction
frigidity
orgasmic dysfunction
vaginismus

IMPORTANT INDIVIDUALS

John Money
Ethel Albert
Margaret Mead
Alfred Kinsey

Morton Hunt
William Masters and Virginia Johnson
Helen Kaplan
Sidney Jourard

PROGRAMMED REVIEW

1. (p. 529) _____ refer to the sexual and reproductive organs of males and females.
2. (p. 529) These include the _____, _____, and _____ in males.
3. (p. 529) They include the _____, _____, and _____ in females.
4. (p. 529) _____ appear at puberty in response to hormonal signals from the pituitary gland.
5. (p. 529) In females, they include development of _____, the broadening of the _____, and other changes in body shape.
6. (p. 529) For males, they include development of facial and body _____, and the deepening of the _____.
7. (p. 529) These changes signal physical readiness for reproduction. This is especially evident in the female _____, onset of menstruation.
8. (p. 529) From then until _____, the end of regular monthly fertility cycles, women can potentially bear children.
9. (p. 529) Both primary and secondary sexual characteristics are closely related to the action of _____, chemical substances secreted by glands of the endocrine system.
10. (p. 529) The _____ or sex glands affect sexual development by secreting hormones.
11. (p. 529) These hormones include the female hormones _____ and the male hormones _____.
12. (p. 529) The sex glands in the male are the _____ and in the female are the _____.
13. (p. 529) The _____ glands, located on top of the kidneys, also supply sex hormones in both males and females and add to the development of secondary sexual characteristics at puberty.
14. (p. 529) All individuals normally produce both estrogens and androgens, the balance of which influences sexual differences. The development of male or female genitals before birth is largely due to the presence or absence of _____, one of the _____.
15. (p. 530) _____ is determined at the instant of conception.

16. (p. 530) An _____ chromosome plus a Y chromosome produces a male.
17. (p. 531) In the absence of a Y chromosome, the embryo will develop female reproductive organs. Nature's primary impulse, then, is to make a _____.
18. (p. 531) A genetic male will fail to develop male _____ if insufficient testosterone is formed during prenatal growth.
19. (p. 531) Even if testosterone is present, an inherited _____ may exist, again resulting in female development.
20. (p. 531) Hormonal problems during early development may lead to _____ where dual or ambiguous sexual anatomy frequently occurs.
21. (p. 531) For example, a developing female may be masculinized by exposure to _____ (a drug given to prevent miscarriage).
22. (p. 531) Masculinization can also result when normal amounts of estrogen are produced, but a genetic abnormality causes the adrenal glands to secrete excess amounts of androgen. This is called the _____ and can produce a female child with male genitals.
23. (p. 532) In addition to determining genital development, the balance of sex hormones before birth may also permanently "sex-type" the _____, which is thought to explain later differences between males and females in aggressiveness, dominance, and sexuality.
24. (p. 532) However, although hormonal action is important in sexual development, psychologists believe that most sex-linked behavior is _____.
25. (p. 532) Still, some researchers feel that prenatal exposure to androgens or estrogens exerts a biological _____ on later psychosexual development in humans.
26. (p. 532) Support for this comes from the work of John Money and others, who have shown that women exposed to androgens before birth are typically "tomboys" during childhood, engage in more vigorous _____ activities than peers, are more _____, and are less interested in future _____ plans and _____.
27. (p. 532) One's personal, private sense of maleness or femaleness is referred to as _____ and appears to be a learned self-perception. Cases of hermaphroditism emphasize this point. Those individuals raised as boys will act like and consider themselves boys; those raised as girls will act like and consider themselves girls.
28. (p. 532) Most authorities estimate that gender identity is essentially formed by _____ or _____ years of age and few problems occur with hermaphroditic individuals as long as a final decision concerning their sex is made by the age of _____ months.

29. (p. 532) Gender identity begins with male-female labels and is then influenced by _____, that is the subtle pressure exerted by parents, peers, and cultural institutions that urge boys to "act like boys" and girls to "act like girls."
30. (p. 532) In determining adult sexual behavior and sex-linked personality traits, _____ are probably as important as chromosomal, genital or hormonal sex.
31. (p. 532) Sex role refers to the _____ of _____ that is encouraged and expected of individuals on the basis of gender.
32. (p. 532) The naturalness of sex roles is certainly questionable based on cross-cultural observations. For example, _____ has identified numerous cultures in which women do the heavy work because men are considered too weak for it.
33. (p. 533) In the Soviet Union, approximately _____ percent of the medical doctors and a large proportion of the work force are women.
34. (p. 533) _____'s observations of the Tehambuli people offer another good example.
35. (p. 533) Mead found that sex roles for the Tehambuli are a nearly perfect _____ of the American stereotypes.
36. (p. 533) Learning sex roles begins immediately after birth. Overall, parents tend to encourage their sons to engage in _____ (goal-directed) behaviors, to control their _____, and to prepare for the world of work.
37. (p. 533) Daughters are encouraged in _____ (emotion-oriented) behaviors and to a lesser degree for the _____ role.
38. (p. 533) Parents often explain sex differences as "natural," but there is strong evidence that expectations help create them. Even feminist women may be influenced by them. One study found that feminist women had little trouble treating their daughters in a nonstereotyped manner, but were upset if their sons engaged in "_____ " behavior.
39. (p. 533) It appears that in our culture, male seems to be defined by many people as "_____." There is a vague fear of expressive and emotional behavior in male children, because it seems to imply _____.
40. (p. 534) A capacity for sexual arousal is apparent at _____ or soon after. This has been verified by sexual researcher Alfred Kinsey.
41. (p. 534) Kinsey found instances of _____, sexual climax, in boys as young as _____ old and in girls as young as _____ old.

42. (p. 534) Kinsey also found that children aged _____ to _____ spontaneously engage in manipulation and exhibition of their genitals.
43. (p. 534) _____ percent of males and _____ percent of females report having engaged in preadolescent sex play.
44. (p. 535) Sexual arousal is a complex phenomenon. It may be produced by direct stimulation of the body's _____: genitals, mouth, breasts, ears, anus, and to a lesser degree the surface of the body in general.
45. (p. 535) Kinsey has concluded that _____ are the more easily aroused of the two sexes.
46. (p. 535) Men report being more aroused by _____ stimuli of an explicit sort, while women were more likely to be aroused by movies, fiction, or poetry that emphasizes _____ more than sex.
47. (p. 535) A more recent study found much the same results. Women were more negative than men in their _____ to graphic films of intercourse.
48. (p. 535) This data is somewhat misleading however. If measures of _____ arousal are taken, erotic material was equally arousing for both sexes.
49. (p. 535) This suggests women are _____ sexually aroused by erotic stimuli than men, but are _____ to reject such arousal.
50. (p. 535) The peak of sexual activity for males, as measured by frequency of orgasm, is at age _____.
51. (p. 535) For women, the peak of sexual activity occurs at age _____.
52. (p. 535) In males, the strength of the sex drive is related to the amount of _____ secreted by the testes.
53. (p. 535) Androgen also seems to be important to the female sex drive in addition to estrogen. When women are given androgen for medical reasons, they often report _____ sexual drive.
54. (p. 536) According to Kinsey, _____ percent of males and _____ percent of females have had sexual dreams that resulted in orgasm.
55. (p. 536) Kinsey found some _____ in the number of men experiencing nocturnal orgasm after marriage, but _____ among women.
56. (p. 536) Alcohol is a _____. As such it may lower _____ that would normally keep any prohibited behavior in check. However, it often has a _____ effect on sexual response.

57. (p. 536) In lower animals, _____ (surgical removal of the testicles) or removal of the ovaries usually completely abolishes sexual activity in _____ animals.
58. (p. 536) However, sexually experienced animals (particularly higher animals) may show little immediate change in sexual behavior. In humans the effects of castration _____; some individuals show a sex drive decline, others do not.
59. (p. 536) Aging does not unavoidably end sexual activity. The crucial factor appears to be _____. Individuals who fairly regularly engage in intercourse after age _____ to _____ have little difficulty in later years.
60. (p. 536) _____ may be defined as deliberate self-stimulation which causes sexual arousal or orgasm.
61. (p. 536) Kinsey reports that _____ percent of the women he surveyed had masturbated at some time, and _____ percent of the males reported having masturbated.
62. (p. 536) Morton Hunt's more recent survey showed almost identical rates for adults, but a liberalization of attitudes among adolescents. Kinsey found that _____ percent of males had masturbated by age 13, while Hunt obtained a figure of _____ percent for the same age.
63. (p. 536) Also, Kinsey found only a _____ percent rate for females in the 1950s, while Hunt obtained a figure of _____ percent.
64. (p. 537) Hunt also found that a sizable number of married people masturbate at least occasionally—approximately _____ percent.
65. (p. 537) Kinsey reports that _____ percent of a group of women who had masturbated before marriage reported achieving orgasm during the first year. Among a similar group not engaging in masturbation prior to marriage, _____ percent reported orgasms during the first year of marriage.
66. (p. 538) Masters and Johnson have classified sexual response in both males and females into four phases: _____, _____, _____, and _____.
67. (p. 538) Sexual arousal in the male is signaled by _____ of the _____ during the excitement phase.
68. (p. 538) There is also a significant change in _____, an increase in _____ to the genitals, enlargement of the _____, erection of the _____, and numerous other bodily changes.

69. (p. 538) In the mature male, orgasm is accompanied by _____ (release of seminal fluid) and is followed by a short _____ during which no amount of continued stimulation will produce a second orgasm.
70. (p. 538) Although the timing and intensity of the phases vary considerably for individual women, the basic pattern of response is the same as that for men. During the excitement phase, a complex pattern of changes prepares the vagina for intercourse. Also, the _____ become erect, _____ changes, and the skin may become _____.
71. (p. 538) During orgasm, from _____ to _____ muscular contractions of the vagina, uterus, and related structures serve to discharge accumulated sexual tension. No form of _____ accompanies female orgasm.
72. (p. 538) Both _____ and _____ in the female usually last longer than they do in the male.
73. (p. 538) After orgasm, many females return to the _____ phase and may be stimulated to orgasm again.
74. (p. 539) Masters and Johnson exploded the Freudian myth that clitoral orgasm is an immature form of female response. They showed there is _____ in physical response no matter what form of stimulation produces orgasm.
75. (p. 539) As a matter of fact, the _____ is quite lacking in nerve endings for touch.
76. (p. 539) Women in one study said they would rather not choose between vaginal or clitoral stimulation, but if forced, _____ - _____ preferred clitoral sensations.
77. (p. 539) Also, Shere Hite found that, among 3,000 women surveyed, only _____ percent regularly achieved orgasm during intercourse without separate massaging of the clitoris.
78. (p. 539) During love-making, _____ to _____ minutes are usually required for a woman to go from excitement to orgasm. Males may experience all four stages in as little as _____ minutes.
79. (p. 539) At one time the concept of _____ was considered the ideal goal of lovemaking. More recently this has been rejected as an artificial concern that may reduce satisfaction instead of enhancing it.
80. (p. 540) During masturbation, _____ percent of females reach orgasm in four minutes or less. Slower female response during intercourse probably occurs because stimulation to the _____ is less direct.

81. (p. 540) Masters and Johnson have found that while individual differences exist in flaccid penis size, there is _____ variation in size during erection. Also, there is no relationship between penis size and male sexual potency.
82. (p. 540) Only about _____ percent of the male population is capable of multiple orgasm.
83. (p. 540) Changing attitudes toward sex are illustrated by the result of national polls concerning the acceptability of premarital intercourse. In a 1959 Roper Poll _____ percent thought it was wrong; in 1969 only _____ percent rejected it; while by 1973 only _____ percent felt likewise.
84. (p. 541) While attitudes have changed greatly, behavioral changes have been more moderate. For example, a poll of *Psychology Today* readers found that _____ percent accepted extramarital sex under some circumstances. But in practice only _____ percent of married men and _____ percent of married women had actually been unfaithful.
85. (p. 541) Another survey of more conservative couples found that only _____ percent reported extramarital sexual experience.
86. (p. 541) These figures can be compared with those of Kinsey who found very similar figures in the 1950s: about _____ percent of males and _____ percent of females had had at least one extramarital contact during their lifetimes.
87. (p. 541) More significant behavioral changes can be seen in premarital intercourse rates. Kinsey found that _____ percent of males and _____ percent of females had engaged in premarital intercourse by age 25. Hunt's survey reported rates of _____ percent for males and _____ percent for females by age 25. An even more recent survey found that _____ percent of women married after 1973 had engaged in premarital relations.
88. (p. 541) A major element of the "sexual" revolution is earlier participation in sexual behavior by both sexes and marked increase in sexual expression among _____.
89. (p. 541) Also, studies show _____ rates of intercourse in marriage for couples of all ages and a _____ variety of sexual expression in marital relations.
90. (p. 541) Although sexual intercourse by unmarried couples is more freely accepted, most couples emphasize mutual commitment and a loving relationship. Most women have only _____ premarital sexual partner whom they eventually marry, while men typically have about _____ premarital partners.

91. (p. 544) _____ refers to a male's inability to maintain an erection for sexual intercourse. Those suffering from _____ have never been able to produce or maintain an erection, while those who have previously performed successfully, but then lose the ability, are said to suffer from _____.
92. (p. 544) Sex therapists Masters and Johnson feel that a problem of impotence exists when failure occurs on _____ percent or more of a man's lovemaking attempts and should therefore be distinguished from an occasional inability.
93. (p. 544) As a continuing problem, impotence is rarely caused by physical illness. Most cases are psychologically related to highly restrictive _____ training, early sexual experience with a seductive _____, or other experiences leading to guilt, fear, and sexual inhibition.
94. (p. 544) Secondary impotence may be related to anxiety, guilt or fear. It often starts with excessive consumption of alcohol or the presence of _____ leading to repeated sexual failures. Initial doubts become severe fears of failure which serve to further inhibit sexual response.
95. (p. 545) In _____, a technique used in treating impotence and other sexual disorders, the couple is initially told to take turns stroking various parts of each other's bodies. Genital contact is avoided at first, with emphasis placed on giving pleasure and on signaling what is most gratifying.
96. (p. 545) Masters and Johnson define the problem of _____ as one in which a man is unable to delay sexual climax long enough to satisfy his partner in at least one-half of their lovemaking attempts.
97. (p. 545) Helen Kaplan says that prematurity exists when ejaculation occurs _____ and is accompanied by inability to tolerate high levels of excitement at the plateau stage of arousal.
98. (p. 545) The most common treatment for premature ejaculation is the _____. Here the woman stimulates her partner manually until he signals that ejaculation is about to occur. She then firmly squeezes the tip of the penis to inhibit orgasm.
99. (p. 545) An inability to reach orgasm, or _____, may have many different causes. However, it too can be successfully treated using sensate focus, manual stimulation by the female, and work around personal conflicts and marital difficulties.
100. (p. 545) Women who show little or no physical arousal to sexual stimulation and persistently derive no pleasure from sexual stimulation suffer from _____. _____ commonly referred to as _____.

101. (p. 546) Female general sexual dysfunction is similar to male impotence; it may be either primary or secondary. Also, it has similar causes. Treatment includes sensate focus, genital stimulation by the woman's partner, and "_____ " intercourse controlled by the woman.
102. (p. 546) The most prevalent sexual complaint among women is _____, an inability to reach orgasm during intercourse, the most common source being _____ of sexual response.
103. (p. 546) In the condition known as _____, muscle spasms make intercourse impossible. It is often accompanied by obvious fears of intercourse or at least high levels of anxiety.
104. (p. 546) Treatment of vaginismus is similar to what might be done for a nonsexual _____, including desensitization, implosive therapy, and hypnosis.
105. (p. 546) It is often difficult to separate sexual adjustment from the broader context of a relationship. Maintaining a healthy emotional and sexual relationship certainly involves _____ as indicated by investigations of happily married couples.
106. (p. 547) Several guidelines can be suggested to help facilitate communication. One of them is to avoid "_____" that is saving up feelings and complaints.
107. (p. 547) Another suggestion is to be open about _____. Happy couples not only talk more, they convey more personal feelings and show greater sensitivity to their partner's feelings.
108. (p. 547) Don't attack the other person's _____. Expressions of negative feelings should be given as statements of one's own feelings, not as statements of _____.
109. (p. 547) Don't try to _____ a fight; instead try to resolve the differences without focusing on who is right or wrong.
110. (p. 547) Recognize that _____ is appropriate. However, constructive fights require that couples fight fair by sticking to the real issues and not "hitting below the belt."
111. (p. 548) Sidney Jourard has conducted some intriguing studies in human touching, not only in our country, but cross-culturally. He discovered that, in American society, most regions of a young adult's body remain untouched unless one has a close friend of the _____, and even that depends upon their relationship.
112. (p. 548) Jourard also found interesting sex differences. Daughters are touched more right into their twenties. Mothers are allowed to touch a girl's hair frequently. One-_____ the parents get to touch their daughters' lips, and one-_____ manage a literal pat on the back. Sons, on the

other hand, receive considerably less touching. Also, parents stop touching boys much earlier.

113. (p. 548) However, taboos do exist. Only _____ percent of the girls studied received a paternal pat on the bottom and _____ were touched by their fathers in the genital areas.

SELF TEST

1. Female hormones secreted by the gonads are
 - a. estrogens.
 - b. androgens.
 - c. testosterone.
 - d. adrenalins.
2. Male hormones secreted by the gonads are
 - a. estrogens.
 - b. androgens.
 - c. adrenalins.
 - d. progesterones.
3. True-False. Nature's primary impulse is to make a male so as to assure abundant levels of sperm for procreation.
4. True-False. There appear to be no "natural" male or female behaviors.
5. True-False. Menarche marks the end of a female's ability to reproduce.
6. True-False. Secondary sexual characteristics refer to the lesser physical differences between males and females such as position of sexual and reproductive organs.
7. The sex gland(s) of the male is (are) the
 - a. penis.
 - b. scrotum.
 - c. testes.
 - d. prostate.
8. The sex gland(s) of the female is (are) the
 - a. ovaries.
 - b. clitoris.
 - c. vagina.
 - d. uterus.
9. A learned, self-perception of one's maleness or femaleness is referred to as
 - a. expressive behavior.
 - b. instrumental behavior.
 - c. sex-role socialization.
 - d. gender identity.

10. Retarded ejaculation refers to an inability to
 - a. sustain erection.
 - b. feel physical pleasure.
 - c. achieve orgasm.
 - d. achieve erection promptly.
11. True-False. Orgasm is not possible prior to puberty.
12. A major sexual adjustment technique which involves nongenital physical contact is
 - a. sensate focus.
 - b. squeeze technique.
 - c. sex-role socialization.
 - d. orgasmic relearning.
13. The peak of female sexual activity as measured by frequency of orgasm comes at what age?
 - a. 18
 - b. 25
 - c. 30
 - d. 35
14. In males, the strength of the sex drive is related to the amount of _____ secreted.
 - a. gonadin
 - b. estrogen
 - c. androgen
 - d. seminal fluid
15. True-False. Women are more inclined, when measured physiologically, to respond negatively to explicit pictures of sex than men.
16. True-False. Recent surveys of sexual behavior indicate that much of the changes are a result of increased sexual activity on the part of females.
17. What percentage of males surveyed by Kinsey reported having masturbated?
 - a. 50
 - b. 60
 - c. 75
 - d. 95
18. The technique of choice in treating premature ejaculation is
 - a. sensate focus.
 - b. squeeze technique.
 - c. sex-role socialization.
 - d. orgasmic relearning.
19. True-False. Secondary impotence refers to frigidity in females.
20. True-False. Masturbation should not be practiced after marriage because it represents hostility toward a mate.

21. True-False. Women who masturbate prior to marriage are less likely to achieve orgasm through intercourse during their first year of marriage than women who do not masturbate before marriage.
22. True-False. No form of ejaculation accompanies female orgasm.
23. The most important source of sexual stimulation for most females is (are) the
 - a. breasts.
 - b. vagina.
 - c. clitoris.
 - d. cervix.
24. True-False. Males may experience all four sexual stages in as little as four minutes when making love.
25. True-False. During masturbation, 70 percent of females reach orgasm in four minutes or less.
26. True-False. There is no relationship between penis size and level of female sexual gratification.
27. A condition in which muscle spasms make intercourse impossible for the female is known as
 - a. frigidity.
 - b. androgenital syndrome.
 - c. orgasmic dysfunction.
 - d. vaginismus.
28. True-False. Simultaneous male and female orgasm should be the ultimate goal of sexual intercourse.
29. True-False. General attitudes about sexual behavior have changed more radically than actual sexual behaviors themselves.
30. Dual or ambiguous sexual anatomy may result from hormonal problems before birth. This is known as
 - a. hermaphroditism.
 - b. androgenital syndrome.
 - c. general sexual dysfunction.
 - d. vaginismus.
31. True-False. Both orgasm and resolution in females last longer than they do in males.
32. True-False. Compared with such countries as France and Puerto Rico, there is very little touching between individuals in our culture.
33. True-False. The critical factor for an extended sex life appears to be regularity.
34. The _____ people reported by Mead have a nearly perfect reversal of American sex role stereotypes.

- a. Zulu
 - b. Tehambuli
 - c. Soviet Union
 - d. Tsari
35. When a genetic abnormality causes the adrenal glands to secrete excess amounts of androgen, it can produce a condition known as _____ where a female child has male genitals.
- a. gender misidentity
 - b. androgenital syndrome
 - c. vaginismus
 - d. impotence

ESSAY QUESTIONS

1. Discuss masturbation as a form of sexual release. When does it begin? Does it produce physical harm? Should it be continued during marriage? Relate empirical findings relevant to the issue.
2. What differences exist between men and women as they proceed through the four stages of sexual response? What are the implications of these differences for sexual adjustment and compatibility?
3. Discuss the major sexual problems of males and females and how they are typically treated.
4. Discuss the ways in which superior communication skills can be achieved by a couple.

Social Psychology I. 25

TERMS AND CONCEPTS

social psychology

culture

roles

ascribed

achieved

role conflict

status

autokinetic effect

social comparisons

interpersonal attraction

personal space

proxemics

norms

conformity

group sanctions

obedience

passivity

assertiveness training

groupthink

IMPORTANT INDIVIDUALS

Stanley Milgram

Muzafer Sherif

Philip Zimbardo

Leon Festinger

Elliot Aronson

Zick Rubin

E. T. Hall

Eric S. Knowles

Soloman Asch

Martin Orne

Thomas Moriarty

Joseph Wolpe

Irving Janis

PROGRAMMED REVIEW

1. (p. 550) Stanley Milgram conducted an interesting social psychology experiment to see how many messages could be delivered through the mail from one side of the continent to the other if each "link" had to be a first-name

acquaintance. Amazingly, about one message in _____ made it with the number of intermediary "links" required averaging about _____.

2. (p. 551) _____ is the study of how people behave in the presence (real or implied) of others.
3. (p. 551) _____ is an ongoing pattern of life that is passed from one generation to the next.
4. (p. 551) In each group an individual belongs to, they occupy a _____ in the structure of the group.
5. (p. 551) _____ are different behavior patterns displayed in connection with a particular social position.
6. (p. 551) Roles that are not under the individual's control—male or female, etc.—are called _____ roles.
7. (p. 551) _____ roles are those which are attained voluntarily—wife, teacher, scientist, bandleader, etc.
8. (p. 551) Roles can be useful because they streamline many of our daily interactions. However, it is not unusual for a person to occupy two or more opposing roles which results in _____, an uncomfortable or frustrating situation.
9. (p. 552) The impact of roles is dramatically illustrated by Philip Zimbardo's "prison" experiment. Male college students paid to serve as "inmates" or "guards" assumed their roles so quickly and so powerful were the roles that the experiment was halted after _____ days due to increased brutality by the "guards" and problems of hysterical crying, confusion, and severe depression among "inmates."
10. (p. 552) Position in a group also determines one's _____.
11. (p. 552) This was shown in one experiment where either an old Rambler or a new Chrysler Imperial was repeatedly maneuvered to the front of a line of waiting cars. When the signal turned green, someone honked at the Rambler _____ percent of the time, but only _____ percent of the time with the Imperial.
12. (p. 552) In another experiment, subjects approached by a well dressed researcher and asked to return a dime left in a phone booth did so in _____ percent of the cases, while only _____ percent returned it when the researcher was poorly dressed.
13. (p. 552) Groups are made up of people who are in some way interrelated. Two very important dimensions of any group are its _____ and _____.

14. (p. 552) _____ groups have a high degree of structure. Informal groups may or may not be highly structured.
15. (p. 552) Group _____ is basically an indication of the degree of attraction between group members. It is the basis for much of the power groups exert over their members.
16. (p. 552) A very important aspect of the functioning of any group is its _____, which are standards of conduct which prescribe appropriate behavior in a given situation.
17. (p. 553) One early investigation of the formation of group norms made use of a striking illusion called the _____. Here a stationary pinpoint of light appears to move in a completely darkened room.
18. (p. 553) Using this effect, psychologist Muzafer Sherif found that when two or more people give estimates of the amount of drift, their judgments rapidly _____.
19. (p. 553) We have observed that the need to affiliate appears to be a basic human characteristic. This was experimentally demonstrated in the study of subjects waiting to participate in an experiment using painful electric shock. Most subjects chose to wait with other people in circumstances similar to their own. Here, as with other threatening or unfamiliar situations, _____ serve as a guide for behavior.
20. (p. 554) Social psychologist _____ was among the first to point out that group membership fills needs for social comparison and that when there are no objective standards, we turn to others to evaluate our feelings, actions, opinions, or abilities.
21. (p. 554) _____ holds that a desire for self-evaluation determines what groups are joined, and provides a general motive for associating with others.
22. (p. 554) _____ are the basis for most voluntary social relationships.
23. (p. 554) Social psychologist Elliot Aronson lists several things that determine with whom you are likely to become friends. One of these is simple _____. Our friends are selected more on the basis of opportunity.
24. (p. 554) Another important factor is _____. Beautiful people are consistently rated more attractive than those of average appearance.
25. (p. 554) This seems to be more an influence for women than men. For example one study of dating patterns among college dormitory residents found a strong relationship between physical beauty and dating frequency for

women, but none for men. Men seem to be judged more on the basis of how _____ they are.

26. (p. 555) _____ is another quality which leads to interpersonal attraction. We are attracted to those who are talented, but human.
27. (p. 555) _____ is another important factor. People with similar backgrounds, interests, attitudes, or beliefs are attracted to each other.
28. (p. 556) Relationships may be formed on the basis of _____ as well as on similarities.
29. (p. 556) It appears that _____ is important in the initial stages of building a relationship, whereas _____ may be necessary to sustain it.
30. (p. 556) Many of the above factors can be understood in terms of maximizing rewards while minimizing costs in any social relationship. _____ theory states that a relationship must be profitable to endure.
31. (p. 556) The _____ - _____ theory holds that gains in liking or approval are more rewarding than constant liking.
32. (p. 557) An innovative research program carried out by Zick Rubin has provided some answers to the similarities and differences between love and liking. He found that scores for love of partner and love of friend _____ more than those for liking. Also, women were a little more _____ of their friends than were men.
33. (p. 557) Rubin found that couples who scored _____ on the love scale did more mutual gazing than those who scored _____. Also, couples in general did more gazing than did strangers.
34. (p. 558) An interesting aspect of social behavior is the effort people expend to regulate the space around their bodies, called _____.
35. (p. 558) The study of rules for the personal use of space is called _____.
36. (p. 559) Psychologist E. T. Hall identifies four basic zones related to personal space. One of these is called _____ which extends about 18 inches out from the skin. Entry here is reserved for special people or circumstances.
37. (p. 559) _____ is the distance maintained in comfortable interaction with friends. It extends from about _____ to _____ feet from the body.
38. (p. 559) _____ extends from about _____ to _____

_____ feet. This distance is used in conducting impersonal business and at casual social gatherings.

39. (p. 559) _____ involves separation by more than _____ feet. Here interactions take on a decidedly formal quality.
40. (p. 559) When it is impossible to maintain distance, privacy is most often maintained by avoiding _____.
41. (p. 559) The subtlety of spatial behavior was demonstrated by Eric S. Knowles. He found that as subjects walked down a hallway, they tended to detour around the area of a bench with the distance increasing as the number of people on the bench increased. Apparently the personal spaces of the bench-sitters _____ to create a larger bulge in the hallway.
42. (p. 559) Personal space also extends to areas that become our _____. Respect for the temporary ownership of space is widespread.
43. (p. 560) One of the most heavily researched topics in social psychology concerns the effects of _____. When people interact, they almost always affect one another's behavior.
44. (p. 560) Psychologist McGuire has identified five situations in which social influence occurs. They include _____, where repeated communication is presented, often without explanation.
45. (p. 560) Another is _____, where communication of differences between individual and group actions, norms, or values is made.
46. (p. 560) A third situation involves _____, where through group dynamics and social interaction, tailored arguments and counter-arguments occur.
47. (p. 560) _____ is another situation. Here carefully considered and polished arguments are presented in one-way communication.
48. (p. 560) The fifth situation is brainwashing or _____, where all of the above are used simultaneously.
49. (p. 560) Perhaps the most pervasive in their effects are conformity situations. One of the better known experiments on conformity was staged by _____.
50. (p. 560) In Asch's experiment, subjects were asked to select a comparison line that was closest in length to a standard. Six other people gave their answers prior to the subject. It was found that subjects conformed to the answers of the accomplices on about _____ of the critical trials.
51. (p. 561) Furthermore, _____ percent of those tested yielded at least once.

This is underscored by the fact that other people tested alone erred in less than _____ percent of their judgments.

52. (p. 562) Interviews with Asch's subjects showed that conformity occurred at three levels. A few subjects yielded at the _____ level, having convinced themselves that they actually saw the line as reported by others.
53. (p. 562) More often, yielding was _____, in that subjects felt they did not understand the task, or did not want to spoil the experiments.
54. (p. 562) The largest number of subjects were aware they were yielding, but conformed in fear of being ridiculed. This represents yielding at the _____ level.
55. (p. 562) In most of our experiences with groups, we have been rewarded with acceptance and approval for conformity, and threatened with rejection or ridicule for nonconformity. These reactions are called _____.
56. (p. 562) In understanding why subjects in Asch's experiments conformed and in understanding group pressures in general, one important factor is the _____ of the majority. The number of conforming subjects increased dramatically as the majority increased from two to _____ people. However, beyond this an increase in numbers produces little effect.
57. (p. 562) Even more important than the size of the majority is its _____. Having at least one person in your corner can greatly reduce pressures to conform.
58. (p. 563) In terms of numbers, a unanimous majority of three is _____ powerful than eight with one dissenting.
59. (p. 563) In trying to understand the ways in which people are able to influence each other, it is helpful to distinguish among five types of social power. One of these, _____, lies in the ability to reward a person for complying with desired behavior.
60. (p. 563) _____ is based on the ability to punish a person for failure to comply.
61. (p. 563) _____ comes from acceptance of a person as an agent of an established social order.
62. (p. 563) _____ is based on respect for, or identification with, a person or a group.
63. (p. 564) _____ is based upon recognition that another person has knowledge or expertise necessary for achieving a goal.

64. (p. 564) A person who has power in one situation may have very little in another. In those situations where a person has power he is described as an _____.
65. (p. 564) Psychologist Stanley Milgram has conducted a provocative series of studies on _____. The experiment involved "teachers" who gave "learners" progressively more intense shocks for errors in list memorization.
66. (p. 565) "Teachers" thought that "learners" were actually being shocked using voltage ranging from 15 to 450 volts. In the first experiment, Milgram found that _____ percent of those tested obeyed his instructions to continue shocking learners up to 450 volts. No one stopped short of 300 volts.
67. (p. 565) In a follow-up experiment, Milgram conducted the same study in a shabby office building to control for the prestige of Yale University. Here _____ percent of the "teachers" obeyed his instructions.
68. (p. 565) Milgram found that distance between the "teacher" and the "learner" was important. When subjects were in the same room as the "learner," only _____ percent were fully obedient.
69. (p. 565) When they were face-to-face with the "learner" and required to force his hand down on a shock plate, only _____ percent obeyed.
70. (p. 565) Milgram also found that distance from the authority had an effect. When the experimenter delivered his orders over the phone, only _____ percent obeyed.
71. (p. 566) On a more positive note, when real subjects saw two other "teachers" (both actors) resist orders and walk out of the experiment, only _____ percent continued to obey.
72. (p. 566) In addition to research on simple conformity, social psychologists such as Martin Orne have also focused on the concept of _____. For example, in one experiment subjects were presented a thoroughly boring and obviously meaningless task. Many subjects worked on it for several hours without outward signs of anger.
73. (p. 566) Thomas Moriarty found similar results in his studies. For example, two subjects (one an accomplice) were placed in a small room and given a difficult task to complete. The accomplice turned on a tape-player at full volume for 17 minutes and would turn it off only after a third request. In this experiment, _____ percent of the subjects said nothing.
74. (p. 569) Joseph Wolpe, and others, have pioneered a therapeutic technique called _____ using group exercises, videotapes, mirrors, and staged conflicts.

75. (p. 569) The first step is to convince yourself of three basic rights: the right to _____, to _____, and to right a wrong.
76. (p. 569) A basic distinction can be made between _____-_____ and _____ behavior. Aggression is an attempt to get one's own way no matter what. Assertion techniques emphasize firmness, not attack.
77. (p. 569) To improve your assertiveness, begin by _____ how you would confront a situation. Practice is the key.
78. (p. 569) Working in front of a mirror or _____ the scene with a friend where they take the part of the person or situation you wish to confront can help.
79. (p. 569) Another important principle is _____; continue practice until your responses become almost automatic so that you can perform them under stress.
80. (p. 569) One more technique is the _____. Simple persistence through repeating a request as many times and as many ways as necessary is often all that is needed for successful self-assertion.
81. (p. 571) Psychologist Irving Janis blames the Bay of Pigs and similar fiascoes on _____—a compulsion by decision makers to maintain each other's approval, even at the cost of critical thinking.
82. (p. 571) Several major characteristics of groupthink can be outlined. One of these, _____ of _____, occurs when group members become overly optimistic and think themselves immune to failure.
83. (p. 571) When group members convince themselves of the correctness of their decisions and views while ignoring or discounting warnings and contradictory information, we speak of _____.
84. (p. 571) _____ is another sign. The group tends to look upon itself as the upholder of good and ignores the ethical and moral dilemmas posed by its actions.
85. (p. 571) _____ may develop in which the group simplifies and creates unrealistic images, particularly of rivals and enemies, who are seen as stupid, incompetent, weak, evil, etc.
86. (p. 571) _____ can be seen in which group loyalty requires that members avoid rocking the boat by questioning weak arguments or sloppy thinking of others.
87. (p. 571) _____ can develop in which each member withholds their doubts or disagreements, contributing to a false sense of solidarity and agreement.

88. (p. 571) _____ of _____ is another characteristic. Conformity pressures and self-censorship can cause members to believe that greater agreement and unanimity exist than actually do.
89. (p. 571) Finally, one may observe the emergence of "_____", members who take it upon themselves to "protect" the group or its leader from conflicting or adverse information when it surfaces.
90. (p. 571) To prevent groupthink fiascoes Janis suggests that group leaders should
- (1) define each group member's role as that of _____;
 - (2) avoid stating their _____ in the beginning;
 - (3) state the problem _____, and without bias;
 - (4) invite outside colleagues or different members each meeting to play _____.
91. (p. 572) Janis also suggests that some decision makers might imitate the ancient Persian practice of reaching important decisions first _____ and then a second time _____.

SELF TEST

1. True-False. Ascribed roles are those which are attained voluntarily, such as wife, teacher, scientist, etc.
2. Of the following, which are important dimensions of any group? (Indicate by circling.)
 - a. structure
 - b. formality
 - c. cohesiveness
 - d. size
3. Of the following, which are factors that determine interpersonal attraction between individuals? (Indicate by circling.)

| | |
|----------------------------|---------------------------|
| a. physical proximity | e. competence |
| b. physical attractiveness | f. similarity |
| c. inherent goodness | g. group status |
| d. morality | h. cultural compatibility |
4. According to social exchange theory, a relationship must be _____ to endure.
 - a. meaningful
 - b. reasonable
 - c. profitable
 - d. positive
5. True-False. Dating couples like and love their partners, but mostly like their friends, according to the research of Zick Rubin.
6. The strongest interpersonal attraction comes from _____, according to the gain-loss theory.

- a. constant liking
 - b. gains in liking
 - c. loss in liking
 - d. constant disliking
7. Which space distance defines the most private personal space reserved for special people and circumstances?
- a. intimate
 - b. personal
 - c. romantic
 - d. social
8. Impersonal business and casual social gatherings take place in a range of about
- a. 18 inches out from the skin.
 - b. $1\frac{1}{2}$ to 4 feet.
 - c. 4 to 12 feet.
 - d. beyond 12 feet.
9. Of the following, which are social situations where social influence plays an important role? (Indicate by circling.)
- | | |
|------------------------|-----------------------------|
| a. suggestion | e. group discussion |
| b. conformity | f. intensive indoctrination |
| c. persuasive messages | g. experimental |
| d. role interactions | h. testing |
10. In the Asch experiment, it was found that _____ percent of all subjects involved yielded to group judgment at least once.
- a. 50
 - b. 75
 - c. 90
 - d. 100
11. True-False. The Asch experiment showed that the tendency to agree with the group's judgment continued to increase as the size of the group increased. The larger the group, the greater the tendency seemed to be.
12. True-False. The Asch experiment showed that even more important than the size of the group was the unanimity. A unanimous majority of three was more powerful than eight with one dissenting.
13. Of the following, which are types of social power? (Indicate by circling.)
- | | |
|-------------|---------------|
| a. reward | e. legitimate |
| b. coercive | f. business |
| c. noble | g. referent |
| d. expert | h. group |
14. The study of the interpersonal use of space is called
- a. spaciology.
 - b. kinesthetics.
 - c. proxemics.
 - d. distances.

15. Milgram's original study of obedience to authority found that _____ percent of those tested obeyed completely by going all the way up to the 450 volt shock level.
 - a. 25
 - b. 50
 - c. 65
 - d. 75
16. True-False. Milgram found in the obedience experiment that distance from "learner" and distance from experimenter were not as influential in determining the subject's tendency to obey as was the location of where the experiment was conducted.
17. True-False. In an experiment studying the role of competency in degree of interpersonal attraction, Aronson found that superior but clumsy individuals were more attractive than individuals who were only superior.
18. In the Asch experiment, conformity occurred at several levels. The largest number of subjects were aware they were yielding but conformed out of fear of ridicule. These subjects were yielding at what level?
 - a. judgmental
 - b. progressive
 - c. perceptual
 - d. action
19. True-False. Norms are standards of conduct which prescribe appropriate behavior in any given situation.
20. True-False. In an experiment on group norms, Sherif found that when two or more people were asked to observe the autokinetic effect and give judgments on the degree of light drift, their answers tended to rapidly converge.
21. True-False. When a situation is threatening or unfamiliar, we tend to rely more upon our own judgment rather than that of others.
22. True-False. Men tend to rate their friends higher on the love scale than do women.
23. Convincing yourself that you have the right to refuse, to request, and to right a wrong is a basic principle of
 - a. conformity.
 - b. assertiveness training.
 - c. groupthink.
 - d. proxemics.
24. When decision making becomes so compulsive in maintaining personal status and conformity that critical thinking is minimized, we speak of
 - a. proxemics.
 - b. obedience.
 - c. role conflict.
 - d. groupthink.

25. True-False. Investigators such as Orne and Moriarty have discovered that passivity is a relatively inconsequential problem in our society today.

ESSAY QUESTIONS

1. Discuss those factors which seem to control the degree of interpersonal attraction between individuals.
2. How are the topics of conformity, passivity, and groupthink related? Cite experiments to discuss your points.
3. Discuss how the Asch and Milgram experiments demonstrate the ways in which our behavior is influenced by others.
4. Discuss the idea and types of interpersonal space. How is the concept of territoriality related?

Social Psychology II 26

TERMS AND CONCEPTS

attitude
social distance scale
attitude scales
reference group
persuasion
role-playing
cognitive dissonance
brainwashing
cults
prejudice
discrimination
racism

scapegoating
authoritarian personality
ethnocentric
dogmatism
social stereotypes
status inequalities
subordinate goals
aggression
frustration-aggression hypothesis
crowding
density
overload

IMPORTANT INDIVIDUALS

Theodore Newcomb
Leon Festinger
James McConnell
Margaret Singer
F. K. Heussenstamm
Gordon Allport
Theodore Adorno
Milton Rokeach

Jane Elliot
Muzafer Sherif
Konrad Lorenz
Bibb Latané
John Darley
John Calhoun
Garvin McCain
Stanley Milgram

PROGRAMMED REVIEW

1. (p. 573) An _____ is a learned predisposition to respond to people, objects, or institutions in a positive or negative way.
2. (p. 573) There are three ways in which attitudes are expressed. Most attitudes have a _____ component, an _____ component, and an _____ component.
3. (p. 573) Attitudes are acquired in three basic ways. Sometimes through _____ with the object of the attitude. Attitudes are also learned through _____ with others holding the attitude. Attitudes are also acquired through the effects of _____.
4. (p. 573) Group membership certainly influences attitudes. In one classic study, discussion groups were formed to discuss the case of a juvenile delinquent. As a test of group pressures on attitudes, a person was introduced into the group who advocated extreme punishment. At first the group directed _____ of their comments to him. However, if the deviate stuck to his position, he was almost completely _____ from further conversation.
5. (p. 573) After the discussion, group members were asked to anonymously rank members in terms of their desirability for continued group membership. The deviate was strongly _____ in these ratings.
6. (p. 574) A number of other factors may contribute to the formation of attitudes. _____ influence can be particularly strong in childhood.
7. (p. 574) Attitudes are also influenced by the _____. Consider, for example, that 98 percent of American homes have a television set which is on an average of six hours a day.
8. (p. 574) Some attitudes are formed quite inadvertently through _____. If you have limited contact with an event and it is negative, you will tend to take an unduly dim view of all such events.
9. (p. 576) Attitudes are only one of the many determinants of actions in a particular situation. The _____ of one's actions weigh heavily on the choices that are made.
10. (p. 576) Attitudes can be measured in several different ways. For example, a person might be asked in an _____ - _____ some question that requires the statement of an attitude.
11. (p. 576) Another approach which has been particularly useful as a measure of attitudes towards various national or ethnic groups is a _____ - _____. This measures the degree to which a person would be willing to have contact with another person.

12. (p. 576) Use of _____ is one of the most common approaches to attitude measurement. These consist of statements expressing various possible attitudes on a particular issue. By computing scores on all items, people can be rated in terms of their overall acceptance or rejection of a particular issue.
13. (p. 576) Although attitudes are relatively stable, they are subject to change. Some attitude change can be understood in terms of the concept of _____, whose values and attitudes are seen by individuals as being relevant to their own.
14. (p. 576) In the 1930s, Newcomb studied real life attitude change among students at Bennington College. While all students could count the college and their families as membership groups, only one or the other tended to become their _____ group.
15. (p. 577) _____ refers to any deliberate attempt to bring about attitude change by the transmission of information. An example is TV advertising which cost business corporations, politicians, and others over five billion dollars in 1978 in attempts to change attitudes.
16. (p. 577) In most cases the success or failure of attempted persuasion can be understood by considering the characteristics of the _____, the _____, and the _____.
17. (p. 577) Research suggests that attitude change is encouraged when the communicator is _____, _____, an _____ on the topic, and similar to the audience in some respect.
18. (p. 577) Also along this dimension, the communicator should appear to have _____ to _____ if the audience accepts the message.
19. (p. 577) With regard to the message, attitude change is encouraged when it appeals to emotions, particularly _____ and _____, and when it provides a clear course of action which, if followed, will reduce these emotions.
20. (p. 577) The message should present both sides of an argument for a _____ informed audience, but only one side when the audience is _____ informed.
21. (p. 577) And finally, the message should state clear-cut _____ and be repeated as frequently as possible.
22. (p. 577) To bring about attitude change, psychologists have experimented with creating certain experiences through _____.
23. (p. 577) For example, women who were known smokers and asked to play the role of a cancer patient drastically _____ their smoking. Control subjects who listened to a tape recording of similar information showed _____ change.

24. (p. 578) The influential theory of _____ states that contradicting or clashing thoughts cause discomfort. If someone can be made to act in a way that is inconsistent with their attitude, they may change one or both to bring them into agreement and achieve consistency.
25. (p. 578) Cognitive dissonance theory suggests that people _____ information contradictory to their attitudes and _____ new information that contradicts ideas they already hold.
26. (p. 578) The amount of _____ or _____ for acting contrary to one's real beliefs determines the amount of dissonance created.
27. (p. 578) An example is shown in the now classic study where college students performed an extremely boring task. Students paid \$20.00 for lying to others about the experiment rated the experiment as boring. But, those paid only \$1.00 actually rated the experience as being _____ and _____.
28. (p. 579) James McConnell has studied brainwashing and notes that it requires a _____ audience. Complete control over the environment allows a degree of psychological manipulation that would be impossible in a normal setting. Furthermore, McConnell has identified three techniques used for brainwashing. First, the target person is _____ from other people who would support his original attitudes.
29. (p. 579) Also the target is made completely _____ on his captors for satisfaction of his needs.
30. (p. 579) The third method is to place indoctrinating agents in a position to _____ the target for changes in attitudes or behavior.
31. (p. 579) Brainwashing typically begins with an attempt to make the target feel completely helpless. Physical and psychological abuse serve to _____ values and beliefs. _____ comes about when exhaustion, etc., become unbearable. When the person breaks, he is suddenly rewarded with praise, food, etc. This serves to _____ new attitudes.
32. (p. 579) As psychologist Philip Zimbardo points out, coercive persuasion may not be restricted to brainwashing. Police interrogations are obviously quite successful. In the United States more than _____ percent of all criminal cases are solved by confession.
33. (p. 580) These techniques were most unfortunately demonstrated by Jim Jones' People's Temple. Psychologist Margaret Singer has studied and aided more than 300 former _____ members from this and other organizations.
34. (p. 580) She found that some of those interviewed were suffering from marked psychological distress when they joined a cult, but most were simply

undergoing a period of mild _____, _____, or _____ from family and friends.

35. (p. 580) Cult members try to catch potential converts at a time of need, especially when a sense of _____ will be attractive to the convert.
36. (p. 580) Conversion is achieved through various steps. Often it begins with intense displays of _____ and _____ called "_____".
37. (p. 580) Next comes _____ from noncult members along with _____, and _____ to wear down physical and emotional resistance and to generate commitment.
38. (p. 580) At first recruits make small commitments, then larger commitments are encouraged, with making a major commitment usually the final step. Such major public commitments create such a powerful _____ effect it becomes virtually impossible for converts to admit that they have made a mistake. Once in the group, members are cut off from former reference groups, kept physically and psychologically isolated, and the cult can control the flow and interpretation of information members receive.
39. (p. 581) Cult members remain partially out of a desire for social acceptance and approval, but more often former members mention _____ and _____ as the main reasons for not leaving even when they wished they could.
40. (p. 581) _____ is a negative attitude or a prejudgment tinged with unreasonable suspicion, fear, or hatred.
41. (p. 581) Prejudice that is institutionalized and backed by social power structures is referred to as _____, _____, or _____ depending on the group involved.
42. (p. 581) Both racial prejudice and institutionalized racism may contribute to _____, behavior that keeps individuals from doing things they might reasonably expect to be able to do.
43. (p. 581) An indication of how pervasive discrimination can be is demonstrated by F. K. Heussenstamm's experiment. Fifteen college students with clean driving records each placed a Black Panther bumper sticker on their cars. During the next 17 days the group received a total of _____ traffic citations.
44. (p. 581) One theory suggests that prejudice represents _____, a form of displaced aggression in which hostilities generated by frustration are redirected to other targets.
45. (p. 581) This was demonstrated in a study in which subjects at a summer camp were asked to rate Mexicans and Japanese before and after a frustrating

test. Subjects in this study consistently rated members of these two groups _____ after they had been frustrated.

46. (p. 582) Psychologist Gordon Allport has concluded that there are two important sources of prejudice. _____ occurs when members of another racial or ethnic group represent a threat to the individual's security or comfort.
47. (p. 582) Another type of prejudice occurs simply through the individual's adherence to _____. You may have no personal reason for disliking out-group members but do so because you are expected to.
48. (p. 582) Theodore Adorno has conducted extensive research on what he calls the _____.
49. (p. 582) This personality can be described as a collection of personal attitudes and values marked by rigidity, inhibition, and oversimplification. The authoritarian tends to be very _____, considering only members of their own national, ethnic, or religious group acceptable.
50. (p. 582) To measure these qualities, the " _____ " scale was created that is made up of statements concerning power, authority, and obedience with which the person can agree or disagree.
51. (p. 582) As children, authoritarians were usually severely _____ and learned to fear _____ (and to covet it) at an early age.
52. (p. 582) The "F" scale tends to list statements slanted toward politically conservative authoritarians, but as noted by psychologist Milton Rokeach rigid and authoritarian personalities can be found at both ends of the political spectrum. For this reason Rokeach prefers to describe rigid and intolerant thinking as _____.
53. (p. 582) It is still true that racial prejudice runs deep in American society. For example, a recent experiment showed that liberal white male college students were _____ to give shocks (under laboratory conditions) to a black victim than to a white victim.
54. (p. 583) An unfortunate by-product of the human proclivity for forming groups is that groups themselves may come into conflict. In many cases intergroup conflict is accompanied by _____ images of out-group members and by bitter prejudice.
55. (p. 583) A social stereotype is an oversimplified image of people who fall into a particular category. They may be either _____ or _____ images.
56. (p. 584) In a unique experiment, teacher Jane Elliot sought to give pupils a direct experience with prejudice. Brown-eyed children were discriminated against while blue-eyed children received special rewards. Within two

days there was a very clear effect. It was possible to get children to hate each other because of their eye color and _____.

57. (p. 585) Several lines of thought have been presented on how to combat prejudice. One approach suggests that more frequent _____ interaction between groups in conflict reduces prejudice and stereotypes.
58. (p. 585) One study suggests it does. White women living in integrated and segregated housing projects were compared for changes in attitude toward their black neighbors. In the integrated project, whites showed _____ in attitude toward members of the other racial group. Those in the segregated project showed no change or actually became _____ prejudiced than before.
59. (p. 585) Psychologist _____ and his associates conducted an ingenious experiment with 11-year-old boys at a summer camp to study prejudice and how to overcome it.
60. (p. 585) After strong inter-group loyalties had been established, it was found that having leaders from each group meet did nothing to reduce hostilities. Also just getting the groups together did little. It was only when the boys had to work together that hostilities subsided. This indicates that the creation of _____ serves to help restore relations between groups.
61. (p. 586) The human capacity for aggression is staggering. It has been estimated that during the 125-year period ending with World War II, _____ million humans were killed by other humans (an average of nearly one person per minute).
62. (p. 586) Furthermore, murder now ranks as a major cause of death in the United States. Also, more than _____ million American children are subjected to physical abuse by parents each year.
63. (p. 586) Ethologists such as Konrad Lorenz feel that humans are naturally aggressive, having inherited a "_____" from our animal ancestors.
64. (p. 587) Lorenz believes that aggression is a _____ behavior observed in all animals, including humans. Also, he feels that humans lack certain innate patterns that _____ aggression in other animal species.
65. (p. 587) Despite problems with this instinctive view, there is evidence that a biological basis for aggression may exist. Physiological studies have shown that there are brain areas capable of triggering or ending aggressive behavior. Also, there is a relationship between aggression and such physical factors as _____ (low blood sugar), _____, and specific _____ injuries and disorders.

66. (p. 587) None of the above conditions can be considered a direct cause of aggression. Instead they probably lower the _____ for aggression, making hostile behavior more likely to occur.
67. (p. 587) The frustration-aggression hypothesis states that frustration is closely associated with aggression. When frustration encourages aggression, it probably does so by raising overall _____ levels so that we become more sensitive to cues for aggression.
68. (p. 587) Cues, or signals, for aggression can be either internal (angry thoughts for instance) or external (certain words, actions, and gestures produced by others). One study showed that even inanimate objects may serve as cues for aggression. Subjects were ridiculed and shocked by another person. Just before they got a chance to "return the favor," they saw either a couple of badminton rackets, or a shotgun and a revolver. The latter subjects gave _____ shocks to the person who had angered them.
69. (p. 587) The simplest and one of the most widely accepted explanations comes from _____ which holds that we learn to be aggressive by observing aggression in others.
70. (p. 588) Considered in such terms, it is no wonder there is so much violence in America. A violent crime occurs every _____ seconds, _____ percent of the population own firearms, _____ percent agree that "when a boy is growing up, it is very important for him to have a few fist-fights," and _____ percent of the population admit to having slapped or kicked another person.
71. (p. 590) In studying the Kitty Genovese case, psychologists Bibb Latané and John Darley reached several conclusions. Failure to help (bystander apathy) is related to the _____ of people present.
72. (p. 590) Everyone thought someone else would help. Personal responsibility was spread so thin that no one took action. This indicates that the more potential helpers present, the _____ the chances that help will be given.
73. (p. 590) There are four "decision points" individuals must pass through before giving help. First, they must _____ that something is happening. Next, they must _____ the event as an emergency. Then they must take _____, and finally they must select a course of _____.
74. (p. 590) Latané and Darley suggest that if a sidewalk is crowded and you are in trouble, few people will even see you because of widely accepted norms to carefully "keep their eyes to themselves." Laboratory experiments show that _____ students working in groups exposed to a thick cloud of smoke actually noticed it, while _____ students working alone noticed it immediately.

75. (p. 590) After subjects in groups noticed the smoke, they coolly surveyed the reactions of others while being surveyed themselves. Until someone acts, _____ acts.
76. (p. 591) Groups limit assuming responsibility by causing a _____ of _____. They produce a feeling that no one is personally responsible for helping.
77. (p. 591) This was demonstrated in an experiment in which students took part in a group discussion from separate rooms over an intercom system. Actually there was only one real subject, the others were confederates. During the discussion one of the confederates simulated an epileptic-like seizure and called out for help. In the six-person groups, over one-_____ of the subjects took no action at all. Some subjects in the three-person groups failed to respond, but those who were alone took action immediately.
78. (p. 591) It is not always clear how all the group factors combine in emergency situations, however. In one naturalistic experiment, when a "victim" "passed out" in a subway, he received _____ help when carrying a cane than a liquor bottle. However, most people were willing to help in either case, and there seemed to be little diffusion of responsibility.
79. (p. 591) There is also evidence that people who see others helping are more likely to offer help themselves. For example, motorists were much _____ to stop to help a woman fix a tire when they had just passed another woman being helped by someone.
80. (p. 592) Urban stress involves many factors in our country today; one of them is overcrowding. Some of its potential effects have been studied by John Calhoun. He let a group of laboratory rats reproduce without restriction in a confined space. At its peak, the colony numbered _____ rats yet was housed in a cage designed to comfortably hold about 50.
81. (p. 592) Overcrowding was further exaggerated, since the two dominant males staked out private territory leaving the remaining space to the rest of the colony. Overcrowding resulted in a high incidence of pathological behavior. For example, females abandoned _____ and _____ for their young. Pregnancies _____ and infant _____ ran extremely high.
82. (p. 592) Furthermore, many of the animals became indiscriminately _____ and went on rampaging attacks at others. Also, many animals died from _____ diseases.
83. (p. 592) Also, abnormal sexual behavior was rampant, with some animals displaying _____, _____, _____, or complete sexual _____.
84. (p. 592) While many of these behaviors can be observed in crowded inner-city

4. True-False. Cognitive dissonance theory holds that people tend to seek out new information that may actually contradict ideas they already possess.
5. True-False. Research on racism and prejudice indicates that more frequent equal-status interaction between groups in conflict helps reduce stereotypes.
6. A (an) _____ is a learned predisposition to respond to people, objects, or institutions in a positive or negative way.
 - a. norm
 - b. belief
 - c. stereotype
 - d. attitude
7. True-False. Role-playing can be an effective technique for bringing about attitude changes.
8. Of the following, which are factors that influence attitude formation? (Indicate by circling.)

| | |
|----------------------|-------------------------|
| a. peer groups | e. strangers |
| b. reference groups | f. child rearing |
| c. chance happenings | g. mass media |
| d. order of birth | h. personal convictions |
9. True-False. The authoritarian tends to be very ethnocentric.
10. True-False. Most often previous cult members mention guilt and fear as the main reasons for remaining with the group.
11. True-False. One technique for minimizing hostilities between conflicting groups is to create subordinate goals for the groups to work on together.
12. Of the following, which are methods for measuring attitudes? (Indicate by circling.)

| | |
|---------------------------|----------------------------|
| a. open-ended interviews | e. attitude scales |
| b. social distance scales | f. role-playing tests |
| c. intelligence scores | g. birth order |
| d. economic census polls | h. rank order measurements |
13. True-False. Cognitive dissonance theory states that the amount of reward or justification for acting contrary to one's beliefs determines the amount of dissonance created.
14. True-False. One of the most frightening aspects of brainwashing is that it is often permanent because of the intensity of indoctrination.
15. True-False. Authoritarians tend to be surprisingly happy people because their attitudes are so rigid that they rarely feel challenged by new and uncomfortable information.
16. True-False. Love bombing is a technique in brainwashing often used by various cults.

17. True-False. Some ethologists such as Konrad Lorenz feel that human aggression is an innate predisposition.
18. True-False. One reason why groups are often less likely to offer help in an emergency than are isolated individuals is the problem of diffusion of responsibility.
19. The term _____ refers to the number of people in a given space.
 - a. crowding
 - b. discrimination
 - c. overload
 - d. density
20. True-False. Overload refers to subjective feelings of being overstimulated by social inputs or by a loss of privacy.

ESSAY QUESTIONS

1. What is prejudice and how can it be altered?
2. Discuss some of the important variables in attitude formation.
3. Discuss the theory of cognitive dissonance. Cite any research relevant to this idea.
4. What is brainwashing? Discuss how brainwashing techniques make use of variables important in social psychology.
5. What are crowding and density and what are their effects? Cite animal and human studies to support your answer.

Appendix

TERMS AND CONCEPTS

measurement
nominal scale
ordinal scale
interval scale
ratio scale
descriptive statistics
frequency distribution
histogram
frequency polygon
ordinate
abscissa
measures of central tendency
 mean
 median
 mode
measures of variability

range
standard deviation
z-score
normal curve
inferential statistics
population
sample
tests of statistical significance
correlation
coefficient of correlation
scatter diagram
positive correlation
zero correlation
negative correlation
validity
reliability

IMPORTANT FORMULAE

$$SD = \sqrt{\frac{\text{sum of } d^2}{N - 1}}$$

$$z = \frac{X - \bar{X}}{SD}$$

$$r = \frac{\Sigma (\text{deviations } X) \cdot (\text{deviations } Y)}{\sqrt{(\text{deviations } X)^2 \cdot (\text{deviations } Y)^2}}$$

PROGRAMMED REVIEW

1. (p. 595) There are several ways in which _____ (assigning numbers to observations) can be done.

2. (p. 595) The least effective type of measurement is made on a _____ (naming) _____ in which numbers are simply used to classify objects or events into categories. Computerized application forms which classify people "male or female" and then assign a number to indicate the category are an example.
3. (p. 596) Another type of measurement rank-orders objects or events on an _____. Position on the scale indicates only more or less of something, and the intervals between rankings need not be _____.
4. (p. 596) The most satisfactory scales are _____ and _____ scales.
5. (p. 596) In ratio scales, the intervals along the scale are _____, and they possess a true _____ at which no quantity of the behavior being measured exists.
6. (p. 596) In an interval scale, units on the scale are _____, but the zero point is _____ chosen.
7. (p. 596) One of the two major divisions of statistical methods is _____. They are used to summarize large amounts of data.
8. (p. 596) One type of descriptive statistic is the _____. It is formed by breaking down the entire range of possible scores into classes of equal size and then recording the number of scores falling in each class.
9. (p. 596) Frequency distributions are often expressed graphically using _____. These are constructed by labelling frequencies on the _____ (vertical axis) and class intervals on the _____ (horizontal axis). The height of the bars drawn for each class interval indicates the number of scores in each class.
10. (p. 596) An alternative way of graphing a distribution of scores is the more familiar _____. Here, points are placed at the center of each class interval to indicate the number of cases. Then, the dots are connected by straight lines.
11. (p. 597) A second type of descriptive statistic includes measures of _____. This measure is simply a number describing a "middle score" around which other scores fall.
12. (p. 597) One type of average is the _____, computed by adding all the scores for each group and dividing by the number of scores.
13. (p. 597) The mean is sensitive to extremely _____ or _____ scores in a distribution and, consequently, does not always give the best measure of central tendency.
14. (p. 597) In such cases, the "middle score" in a group of scores, called the _____, is used instead.

15. (p. 597) The median is found by _____ scores from the highest to the lowest and selecting the score that falls in the middle.
16. (p. 597) If there is no "middle score" (which occurs when there is an even number of scores), the two scores which share the middle position are _____ to get to a median.
17. (p. 597) A final measure of central tendency is the _____. It simply represents the most frequently occurring score in a distribution.
18. (p. 597) In psychology the _____ is rarely used and the _____ is the most commonly used.
19. (p. 598) When we want to know if scores are clustered closely about the mean or scattered widely, we use _____ of _____ to attach a numerical value to the "spread" of scores.
20. (p. 598) The simplest way to describe variability is to use the _____, which is the spread between the highest and lowest scores.
21. (p. 598) A better measure of variability is the _____.
22. (p. 598) It is obtained by computing the _____ (or difference) of each score from the mean and then _____ it (multiplying it by itself). These squared deviations are then added and then divided by the total number of squared deviations minus one (a correction factor). Finally, the square root of this average is determined.
23. (p. 598) A particular advantage of the standard deviation is that it can be used to "standardize" scores in a way that gives them greater meaning. This is done using the _____.
24. (p. 598) To convert original scores to z-scores, the mean is subtracted from the score and the resulting number is divided by the _____ for the group of scores from which the original score came.
25. (p. 599) When chance events are recorded and graphed, they resemble what is called a _____. Measures of psychological variables tend to approximate this.
26. (p. 599) A great deal is known about the mathematical properties of the normal curve. For example, there is a fixed relationship between the _____ and the normal curve such that it measures off constant proportions of the curve above and below the mean.
27. (p. 599) As an example of this principle, notice that _____ percent of all cases fall between one standard deviation above and below the mean and _____ of all cases fall between \pm SD. Between ± 3 SD, _____ percent of all cases can be found.

28. (p. 600) _____, the other major division of statistical methods, includes techniques that allow us to generalize from the behavior of small groups of subjects to that of the larger groups they represent.
29. (p. 600) In any scientific investigation, we would like to observe the entire set or _____ of subjects, objects, or events being studied. However, this is usually impossible.
30. (p. 600) Instead, _____ or smaller cross sections of a population are selected, and observations of the sample are used to draw conclusions about the entire population.
31. (p. 600) The major requirement of any sample is that it be _____. It must truly reflect the composition and characteristics of the larger population.
32. (p. 601) A very important aspect of representative samples is that their members are chosen at _____; that is, each member of the population must have an equal chance of being included in the sample.
33. (p. 601) When we compare results from different groups, we wish to know if they might have simply occurred by chance or if they represent a real difference. Tests of _____ provide an estimate of how often experimental results could have occurred by chance alone.
34. (p. 601) The results of a test of statistical significance are stated as a probability giving the odds that the observed difference was due to chance. In psychology, any experimental condition attributable to chance _____ times or less out of 100 is considered significant.
35. (p. 601) If we know, in an experiment where amphetamine increased running speed, that the _____ is .025 that this effect was due to chance, we can conclude that the drug really did affect running speed.
36. (p. 601) Many of the statements that psychologists make about behavior do not result from the use of experimental methods and are usually not analyzed using tests of statistical significance. Instead, they deal with the fact that two variables are _____ (varying together in some orderly fashion).
37. (p. 601) In these cases, we use _____ which give a number, called the _____ of _____, indicating the degree of relationship between two measures.
38. (p. 601) The simplest way of visualizing a correlation is to construct a _____ where one measure is indicated by the X axis and the second by the Y axis.
39. (p. 601) Scatter diagrams are useful in demonstrating the three basic kinds of relationships. When there is a _____ relationship, increases in

scores for one variable are associated with increases in scores for the other.

40. (p. 601) A _____ correlation occurs when there is no relationship between the two variables.
41. (p. 602) With a _____ correlation, increases in the scores of one variable are associated with decreases in the other.
42. (p. 602) The numerical value of a correlation coefficient may range from _____ for a perfect positive correlation to _____ for a perfect negative relationship.
43. (p. 602) Correlation coefficients can be used to establish the _____ of tests (that is, that the test truly measures what it is designed to measure). This is done by showing a high positive correlation between scores using an already established criteria and scores on the test.
44. (p. 602) Correlation coefficients can also be used to measure the _____ of a test (the ability of a test to give the same score on repeated administrations).
45. (p. 602) Correlations are particularly valuable for making _____. If we know two measures are correlated, and we know a person's score on one measure, then we can predict the person's score on the other.
46. (p. 603) It is important to recognize that the existence of a correlation between two measures does not mean that one causes the other. This is expressed by the phrase, "_____ does not demonstrate _____." Often two correlated variables are related through the influence of a third variable.

SELF TEST

1. Which of the following has a true zero point?
 - a. ratio scale
 - b. ordinal scale
 - c. interval scale
 - d. nominal scale
2. The scale which rank-orders objects or events is the
 - a. ratio scale.
 - b. ordinal scale.
 - c. interval scale.
 - d. nominal scale.
3. The graphical display of frequency distributions which uses bars to indicate the frequency of scores within class intervals is the

- a. frequency polygon.
 - b. histographic planing.
 - c. histogram.
 - d. scatter diagram.
4. True-False. Correlation does not demonstrate causation.
5. The measure of central tendency which ranks scores from the highest to the lowest and selects the middle score is the
- a. mode.
 - b. mean.
 - c. standard deviation.
 - d. median.
6. The measure of central tendency which expresses the most frequently occurring score in a distribution is the
- a. mode.
 - b. mean.
 - c. standard deviation.
 - d. median.
7. To compare test scores from different classes, one would probably want to use the
- a. range.
 - b. z-score.
 - c. ordinal scale.
 - d. mode.
8. True-False. In a normal curve, 68 percent of all cases fall between 3 SD above and below the mean.
9. When two variables are not related, we speak of
- a. positive correlation.
 - b. zero correlation.
 - c. negative correlation.
 - d. statistical significance.
10. True-False. The major requirement for any sample is that it be representative.
11. Differences in experimental results are considered significant when it is demonstrated that they could only have occurred _____ or fewer times out of 100.
- a. 5
 - b. 10
 - c. 20
 - d. 50
12. True-False. The two major divisions of statistical methods are descriptive statistics and preferential statistics.

ESSAY QUESTIONS

1. Describe three different measures of central tendency and two measures of variability.
2. What does it mean to say that events are correlated? What does the phrase, "correlation does not demonstrate causation," refer to?
3. Describe the various types of scales which can be used to quantify data.
4. What is the normal curve and how is it useful to the field of psychology?



ANSWER SECTION

CHAPTER 1

Programmed Review

1. behavior
2. describe, understand, predict, control
3. empirical
4. direct investigation
5. moral, practical
6. method
7. comparative
8. anthropomorphic fallacy
9. models
10. description; why
11. consistency
12. altering; influence
13. philosophy
14. 100
15. 1879; Leipzig
16. Wilhelm Wundt
17. structure; analyzing
18. introspection
19. elements
20. functions
21. process
22. Charles Darwin
23. adaptation; adaptation
24. natural selection
25. Educational

26. John Dewey
27. industrial
28. behavioristic; stimulus-response
29. conditioned response
30. B. F. Skinner
31. consequences
32. learning
33. behavior modification
34. Max Wertheimer
35. whole
36. relationship
37. phi phenomenon
38. perception, personality
39. Sigmund Freud
40. unconscious
41. repressed
42. determined
43. childhood
44. psychoanalysis
45. neo-Freudians
46. humanism; psychoanalytic; behaviorism
47. free will
48. needs
49. self-image, self-evaluation; frame of reference
50. self-actualization
51. cognitive; perception, thinking, language
52. scientific; non-scientific
53. clinical
54. American Psychological Association
55. medical; personality, abnormal behavior, psychotherapy
56. psychoanalyst
57. license
58. accurate representation of one's professional qualifications; confidentiality in handling of personal information in teaching, practice, or research; protection of the client's welfare
59. 30
60. 50
61. pure; applied
62. See Table 1 in text.
63. self-actualization
64. efficient perceptions of reality; comfortable acceptance of others, self, nature; spontaneity; problem-centering; autonomy; continued freshness of appreciation; fellowship with mankind; profound interpersonal relationships
65. pseudo-psychologies
66. Palmistry
67. Gall; phrenology
68. Graphology; Europe; 500
69. zero
70. fallacy of positive instances

Self Test

1. (a) understand behavior; (b) predict behavior; (c) control behavior
2. (b) behavior
3. (c) moral limitations; (d) practical limitations; (e) lack of suitable methods
4. (b) The dog wanted Johnny to come to him.
5. (b) Wundt
6. (b) to discover the elements composing the structure of sensory experience
7. (a) structure
8. (b) function
9. (b) functionalism
10. False
11. (c) educational psychology
12. (c) Watson
13. emphasis on determinism; emphasis on importance of childhood in later personality development; development of psychoanalysis
14. (c) Skinner
15. (a) Freud
16. (a) psychoanalytic psychology; (b) behaviorism; (c) stimulus-response psychology
17. False
18. accurate representation of one's professional qualifications; confidentiality in handling of personal information in teaching, practice or research; protection of the client's welfare
19. (c) 30%
20. (d) 50%
21. False
22. (a) continued freshness of appreciation
(b) profound interpersonal relationships
(d) fellowship with mankind
(f) autonomy
(g) efficient perceptions of others
(i) spontaneity
(j) comfortable acceptance of self, others, nature
(l) problem-centering
23. False
24. False
25. (a) astrology; (b) graphology; (c) phrenology; (h) palmistry

CHAPTER 2**Programmed Review**

1. scientific method; observation; defining; hypothesis; experimentation; theory
2. hypothesis
3. Clever Hans
4. naturalistic observations
5. tools
6. naturalistic observations
7. observer; observed
8. concealing
9. observer bias
10. correlation; causation; causes
11. co-relate
12. coefficient; +1.00 and -1.00
13. zero
14. perfect positive; increase
15. -1.00; decreases
16. stronger
17. subjects
18. control; experimental
19. variable
20. independent variable
21. point of reference
22. dependent variable
23. extraneous
24. extraneous
25. randomly
26. extraneous; dependent; independent
27. field experiment
28. placebo
29. 70
30. endorphins
31. double-blind
32. subjects; experimenter
33. experimenter effect
34. maze-bright; maze-dull
35. maze-bright; maze-dull
36. high-ability
37. self-fulfilling prophesy
38. case studies
39. natural experiments
40. frontal lobotomy
41. multiple personalities
42. survey method; representative
43. Gallup and Harris
44. Kinsey's
45. skeptical

- 46. dermo-optical
- 47. source
- 48. control
- 49. correlation and causation
- 50. observation and inference
- 51. oversimplifications
- 52. "for example"
- 53. deception; privacy; harm

Self Test

- 1. (a) defining a problem; (c) theory formulation; (e) observation;
(h) experimentation; (j) proposing a hypothesis
- 2. (c) correlated
- 3. (b) naturalistic observations
- 4. (a) van Lawick-Goodall
- 5. False
- 6. True
- 7. True
- 8. False
- 9. (b) hypothesis
- 10. (c) independent
- 11. control; experimental
- 12. False
- 13. provides point of reference
- 14. (c) dependent, independent
- 15. (c) extraneous
- 16. True
- 17. (d) placebo
- 18. The psychological effect reported by subjects who claim that a pill or injection has had an effect that could not have been caused by the pill or injection.
- 19. (d) double-blind testing
- 20. (c) case study
- 21. (a) frontal lobotomy
- 22. (a) Eve White
- 23. (d) survey method
- 24. False
- 25. (d) phrenology
- 26. (c) Gall
- 27. True
- 28. False
- 29. fallacy of positive instances
- 30. astrology; palmistry; phrenology; graphology
- 31. (a) experimenter effect
- 32. deception; invasion of privacy; lasting harm
- 33. True

CHAPTER 3**Programmed Review**

1. spongy; grapefruit
2. three; 10 to 14
3. neurons
4. Jose Delgado
5. Physiological psychology
6. mechanistic viewpoint
7. dendrites
8. soma
9. axon
10. one-thousandth; feet
11. telodendria
12. membrane
13. resting potential; 70
14. action potential
15. neurotransmitters
16. synapse
17. exciting; inhibiting
18. threshold
19. all-or-nothing
20. eight
21. 330; 225
22. curare; acetylcholine
23. Nerves
24. myelin
25. neurilemma
26. one millimeter
27. brain; spinal cord
28. central nervous system; brain; spinal cord
29. peripheral nervous system
30. somatic
31. autonomic
32. sympathetic; parasympathetic
33. sympathetic branch
34. parasympathetic branch
35. white matter
36. 30
37. 12
38. reflex arc
39. sensory neuron
40. connector
41. muscle fibers
42. effector
43. 1 to 60
44. cerebral cortex
45. grey matter

46. corticalization
47. association areas
48. hemispheres; corpus callosum
49. opposite
50. lobes
51. electrode
52. occipital
53. tumors
54. parietal
55. somatic; somesthetic
56. temporal
57. Auditory
58. memories; smell
59. frontal; motor cortex
60. time; emotionally unpleasant
61. emotionality; thinking, reasoning or planning
62. association cortex
63. aphasia; agnosia
64. Broca's
65. subcortex
66. brainstem or hindbrain; midbrain, forebrain
67. medulla, cerebellum
68. reflex
69. posture; tone; coordination
70. spinocerebellar degeneration
71. reticular formation
72. central clearinghouse
73. attention
74. activating system
75. midbrain
76. superior colliculi; inferior colliculi
77. thalamus; hypothalamus
78. final
79. sex, rage, temperature control, hormone release, eating and drinking, sleeping, waking
80. limbic system
81. emotion, motivated
82. press a lever
83. major hemisphere; minor hemisphere
84. language; mathematical
85. visualization, intuition
86. eye movements
87. right
88. epilepsy; split brain
89. verbally
90. left
91. endocrine system
92. hormones
93. pituitary
94. bodily growth

95. acromegaly
96. thyroid and adrenal
97. master
98. thyroid
99. metabolism
100. personality
101. adrenalin and noradrenalin
102. adrenal medulla
103. adrenal cortex; corticoids
104. salt balance
105. sex hormones
106. virilism
107. premature puberty
108. millin; cerebrovascular accident
109. blood clot
110. ruptures
111. concussion
112. consciousness; permanent
113. confusion and amnesia
114. dizziness, nausea, and headaches
115. contusion
116. coma; delirium
117. speech; irritability, sensitivity; convulsions
118. coordination; tremors, intellectual; personality
119. Senility
120. cerebral arteriosclerosis
121. fatigue, headaches, and dizziness
122. neglectful, memory; confusion, weeping, and disoriented
123. left
124. 95%; speaking, reading, writing and spelling
125. plasticity
126. seven; ten
127. malnutrition; 40%
128. electrical stimulation; ESB
129. brain implantation
130. memories, speech, tears
131. amygdala
132. temporal lobe

Self Test

1. (a) axon; (b) soma; (d) dendrite; (g) telodendria
2. (b) action potential
3. (d) telodendria
4. True
5. (c) neurilemma
6. (a) sympathetic
7. (d) dendrites
8. True

9. False
10. (a) sensory neuron; (c) connector neuron; (e) effector cells; (f) motor neuron;
(g) spinal cord
11. (c) corpus callosum
12. (c) temporal lobes
13. False
14. (c) occipital lobes
15. (a) cerebellum
16. (c) midbrain
17. (a) limbic system
18. (b) pituitary gland
19. (c) thyroid gland
20. (a) corticoids
21. True
22. (c) contusion
23. (a) association areas
24. True
25. (b) aphasias
26. (c) reticular formation
27. (b) parietal lobes
28. (a) thalamus
29. True
30. False
31. (c) CVA
32. (d) cerebral arteriosclerosis
33. False

CHAPTER 4**Programmed Review**

1. transduction
2. data reduction
3. selection
4. stationary; moving; dimming
5. codes
6. pressure; phosphenes
7. brain
8. electrical stimulation
9. somesthetic
10. skin
11. Kinesthetic senses
12. vestibular senses
13. 200,000; touch or pressure; pain
14. pain
15. referred; angina
16. Olfaction; chemical; Gustation
17. molecules
18. lock and key
19. salt, sour, sweet, and bitter
20. texture, temperature, and smell
21. taste bud
22. genetic
23. 70; 30
24. several days
25. compression; rarefaction
26. sound waves
27. pinna
28. eardrum
29. auditory ossicles
30. oval window
31. cochlea
32. hair cells
33. nerve impulses
34. Conduction deafness
35. transfer; hearing aids
36. Nerve deafness
37. Stimulation deafness
38. 80; 120; 150
39. 70
40. visual capture
41. electromagnetic radiation
42. visible spectrum; 400; 700
43. hue
44. saturated
45. amplitude

46. retina
47. lens
48. cornea
49. accommodation
50. hyperopia
51. myopia
52. Presbyopia
53. diaphragm
54. iris; pupil
55. blue; brown
56. dilate; constrict; 17
57. cones
58. rods
59. blind spot
60. fovea
61. Visual acuity
62. fovea; decreases
63. Peripheral
64. 20; movement
65. tunnel
66. light
67. yellowish-green
68. blue-green
69. trichromatic; red, green, or blue
70. yellow
71. opponent-process
72. afterimage
73. retina
74. color blind
75. nystagmus
76. Color weakness
77. 8; 1
78. maternal grandfather
79. Ishihari
80. numbers
81. Dark adaptation
82. 35
83. visual pigments
84. rhodopsin
85. red; rods
86. vitamin A
87. night blindness
88. Psychophysics
89. absolute threshold
90. billionth
91. photon
92. three
93. 20; 20,000
94. perceptual defense
95. perceptual vigilance

96. Subliminal perception
97. ineffective
98. difference threshold
99. just noticeably different; JND
100. Weber's Law
101. auditory
102. sensory adaptation
103. physiological nystagmus
104. selective attention
105. central; gating
106. pain
107. large; slow
108. acupuncture
109. anxiety, attention, and control
110. relief
111. least; greatest
112. terminate; regulate
113. counterirritation
114. sensory deprivation
115. D. O. Hebb
116. hypnogogic images
117. smoking

Self Test

1. lost track of time; had extreme difficulty concentrating; experienced various perceptual distortions
2. (a) hypnogogic images
3. False
4. (b) localization of function
5. (a) gating theory
6. (d) transduction
7. (b) 20 - 20,000
8. (a) sensory adaptation
9. (a) control of pain stimuli; (d) anxiety level; (f) acupuncture; (g) counterirritation; (h) attention
10. (a) selective attention
11. False
12. True
13. (b) absolute threshold
14. (c) perceptual defense
15. (a) JNDs
16. (d) Weber's
17. False
18. hue, saturation, and brightness
19. False
20. (d) lens
21. (b) accommodation
22. True

23. True
24. True
25. False
26. (c) diaphragm
27. (b) taste bud
28. False
29. False
30. (d) cone
31. (a) rod
32. (c) nystagmus
33. True
34. (c) maternal grandfather
35. False
36. (b) dark adaptation
37. (a) pinna; (c) auditory ossicles; (d) cochlea; (f) hair cells; (h) oval window
38. True
39. (a) vitamin A
40. False
41. (b) sensory adaptation

CHAPTER 5**Programmed Review**

1. perception
2. learn
3. size constancy
4. pygmies
5. Shape constancy
6. Brightness
7. Brightness constancy
8. proportion
9. figure-ground
10. unlearned
11. nearness, similarity, continuation (or continuity), and closure
12. complete
13. perceptual hypothesis; redundancy
14. Ambiguous stimuli
15. Depth perception
16. learned
17. visual cliff
18. monocular
19. binocular
20. accommodation
21. four
22. convergence; 50
23. retinal disparity
24. fused; 3-D
25. stereoscopic vision
26. mismatch
27. Pictorial
28. linear perspective
29. relative size
30. light and shadow
31. Overlap or interposition
32. texture; gradient
33. aerial perspective
34. motion parallax
35. faster
36. two-dimensional
37. larger
38. apparent distance
39. larger
40. Ames Room
41. small; large
42. horizontal; vertical
43. inverted vision
44. can
45. Active movement

46. categories
47. tachistoscope
48. Illusions
49. distortion
50. stroboscopic movement
51. Muller-Lyer; shorter
52. size-distance invariance
53. Zulus
54. context
55. frame of reference
56. adaptation level
57. attention
58. intense
59. repetition
60. Contrast or change
61. anxiety and sex
62. perceptual expectancy
63. suggestion
64. reconstruction
65. 50
66. 25
67. reality testing
68. timelessness
69. self-consciousness and defensiveness
70. innocence
71. screens
72. surrender
73. habituation
74. fail
75. change and attention

Self Test

1. (c) Perception
2. (b) size constancy
3. (b) an object appears to have the same shape from any distance from which it is viewed
4. (b) appears equally bright under all lighting conditions
5. False
6. (a) a device used in measuring depth perception
7. (c) accommodation; (d) retinal disparity; (g) convergence
8. (b) retinal disparity
9. (b) linear perspective
10. (a) smaller
11. (a) relative size
12. Objects close to the car seem to move faster than those more in the distance.
13. True
14. (a) linear perspective; (b) relative size; (c) interposition; (d) aerial haze; (e) texture; (f) motion parallax
15. (a) figure-ground

- 16. (a) continuity; (b) closure; (c) nearness; (f) similarity
- 17. (b) Ames Room
- 18. False
- 19. (a) reconstruction
- 20. (c) moon illusion
- 21. (a) adaptation level
- 22. (a) stimulus intensity; (b) stimulus contrast; (c) stimulus repetition
- 23. True
- 24. (c) stimulus context
- 25. (a) with time, humans can learn to function normally with completely different visual cues

CHAPTER 6**Programmed Review**

1. Uri Geller
2. altered state of consciousness; quality, pattern
3. overload; monotonous
4. Parapsychology
5. psychic or psi
6. clairvoyance
7. telepathy
8. precognition
9. prophetic dreams
10. psychokinesis
11. half
12. coincidence
13. premonition
14. Zener cards
15. Telepathy
16. faint outline
17. eyes, facial gestures, or lip
18. statistics; consistency
19. rare
20. run of luck
21. Hypnosis
22. Franz Mesmer
23. magnets
24. animal magnetism
25. James Braid
26. EEG
27. eight; four
28. Stanford Hypnotic Susceptibility Scale
29. attention
30. relax; suggestions; imagination
31. self-hypnosis
32. aware
33. not do
34. disinhibit
35. no more
36. memory; motivation and attention
37. forget
38. pain; phantom limb
39. regressed
40. sensations
41. T. X. Barber
42. psychoactive
43. attention, memory, or judgment; time; control; emotional; perception
44. stimulation to depression
45. physically addicting; withdrawal

46. tolerance
47. psychological dependency
48. physical addiction
49. tobacco and amphetamines
50. psychological dependence
51. Dexedrine, Methedrine, and Benzedrine
52. weight loss; mild depression
53. sleeping; hyperactivity
54. twelve billion
55. bodily resources
56. fatigue, depression; nightmares, confusion; irritability and aggression
57. weight; ulcers; fingernails; infections, liver; hypertensive; cerebral
58. amphetamine psychosis
59. stimulant; coca
60. alertness, euphoria
61. talkativeness, restlessness; thinking; motor
62. several hours; 15 to 30
63. caffeine
64. placebo
65. depression
66. nervousness, irritability, and paranoia; "cocaine bugs"
67. allergic reactions; nasal
68. sedative
69. calm; sleep
70. alcohol intoxication
71. coma or death
72. drug interaction
73. Seconals, Tuinals, Quaaludes, and Sopors
74. 40 to 50; 15
75. cannabis sativa
76. alcohol and tobacco
77. brain; reflexes; appetite; heart rate
78. euphoria, relaxation; time; memory
79. learn
80. driving; minor violation
81. psychological dependence
82. throat and lungs
83. adulteration
84. expensive and persistent
85. misdemeanor; felony
86. stimulant; depressant
87. 100; 10 to 13
88. 20
89. 73; .2
90. increasing consumption; morning; regretted; black outs
91. chain reaction
92. chronic
93. detoxification
94. Alcoholics Anonymous
95. transcendental meditation

96. oxygen; heartbeat; respiration; alpha
97. mantra
98. relaxation response
99. one-quarter

Self Test

1. (d) parapsychology
2. (b) clairvoyance; (c) telepathy; (f) precognition; (g) psychokinesis
3. (b) clairvoyance
4. (b) telepathy
5. (a) precognition
6. (d) Psychokinesis
7. True
8. False
9. False
10. False
11. True
12. (d) sensations
13. True
14. (d) amphetamine psychosis
15. (b) Methedrine; (c) Benzedrine; (g) Dexedrine
16. (b) drug interaction
17. (a) cannabis sativa
18. True
19. False
20. True
21. (c) 73
22. (a) Rhine
23. (b) Braid
24. (d) Barber
25. True
26. (a) less oxygen consumption; (d) reduced respiration; (e) increased alpha brain waves; (g) slowed heartbeat
27. False
28. (d) alcohol

CHAPTER 7

Programmed Review

1. 200
2. hallucinations
3. 170
4. sleep
5. 200
6. Michel Siffre
7. cycles
8. awakening
9. 24
10. 28
11. 51-3/4
12. coma and die
13. microsleep
14. think, reason, or concentrate
15. sleep-deprivation-psychosis
16. staring; tremors, hallucinations; lacy
17. single
18. 8
19. reduction
20. 20
21. two or four
22. less
23. two to one
24. younger; older
25. fatigue
26. Siamese twins
27. brain; spinal cord
28. sleep
29. hypothalamus; reticular formation; brainstem
30. body temperature and metabolism
31. two; eighteen
32. electroencephalograph; EEG
33. small, fast; beta
34. larger and slower; alpha
35. light; irregular; reflex jerk; alpha
36. sleep spindles
37. delta; large and slow
38. deep sleep; delta
39. four or five
40. rapid eye movements
41. dreaming
42. rapid-eye-movement; non-rapid-eye-movement
43. II, III, and IV
44. fatigue; exercise and physical exertion
45. $1\frac{1}{2}$

46. 90
47. 10
48. 30; 50
49. paradoxical
50. 42
51. irregularly; fluctuate
52. erection; sexual arousal
53. eyes
54. increased
55. 20 or 30
56. REM rebound
57. suppresses
58. memory lapses; concentrating; anxiety
59. REM myth
60. total amount
61. schizophrenia
62. 50; 75
63. 20
64. chemical; information; sensory deprivation; emotional
65. somnambulists
66. III and IV
67. Night terrors; IV
68. REM
69. Narcolepsy
70. cataplexy
71. REM
72. 25 to 30; insomnia
73. Sominex, Nytol, and Sleep-eze
74. sedatives; IV and REM
75. tolerance
76. frustration
77. fighting
78. blood sugar
79. tryptophan
80. erratic; relaxation
81. Calvin Hall
82. everyday experience
83. half
84. more
85. increased
86. earlier; morning
87. psychedelic
88. wakes; asleep
89. wish-fulfillment
90. repressed or unconscious
91. condensation
92. displacement
93. symbolization
94. secondary elaboration
95. Carl Jung; series; archetypes

- 96. Calvin Hall
- 97. Rosslund Cartwright; emotional tone
- 98. Ann Faraday; remember; gradually; eyes closed; dream record; suppress
- 99. Fritz Perls
- 100. inhibition; solving problems
- 101. Senoi
- 102. control

Self Test

- 1. False
- 2. False
- 3. (b) secondary elaboration; (d) symbolization; (c) condensation; (g) displacement
- 4. (a) narcolepsy
- 5. True
- 6. False
- 7. (b) beta
- 8. (c) delta
- 9. (a) alpha
- 10. (d) 4 or 5
- 11. (b) 1 to 2
- 12. False
- 13. True
- 14. True
- 15. False
- 16. (d) REM and IV
- 17. True
- 18. True
- 19. False
- 20. False
- 21. False
- 22. (a) memory lapses; (d) difficulty concentrating; (c) tension;
(g) increased need for REM sleep
- 23. (b) drink a glass of milk;
(c) establish a regular schedule of sleep;
(e) establish a pattern of doing nothing but sleeping in bed
- 24. True
- 25. False
- 26. False
- 27. (a) Hall
- 28. (d) Faraday
- 29. (c) Perls
- 30. (a) provide stimulation for infant brain development;
(c) restore brain's chemical balance;
(d) process emotional events;
(e) integrate and store information learned during the day;
(g) prevent sensory deprivation during sleep

CHAPTER 8**Programmed Review**

1. habit
2. E. B. Twitmeyer
3. Ivan Pavlov
4. unconditioned
5. conditioned
6. reflexes
7. unconditioned
8. conditioned
9. conditioned stimulus; unconditioned stimulus
10. extinguished
11. extinction
12. spontaneous recovery
13. stimulus generalization
14. John B. Watson
15. reflex
16. phobia
17. conditioned emotional responses; CER
18. vicarious conditioning
19. galvanic skin response; GSR
20. B. F. Skinner
21. repeated
22. voluntary; reflexes
23. Skinner Box
24. shaping
25. successive approximations
26. extinction
27. spontaneous recovery
28. stimulus control
29. follows; reinforcement
30. when and where
31. stimulus generalization
32. Generalization; extinction
33. stimulus discrimination
34. schedule of reinforcement
35. Continuous reinforcement
36. partial reinforcement
37. resistance to extinction; partial reinforcement
38. reward and nonreward
39. fixed ratio
40. FR₁₀
41. high rates
42. variable ratio; VR₅
43. lower; greater
44. fixed interval; FI
45. moderate; responding and nonresponding

46. variable interval; VI
47. resistance to extinction and slow
48. discriminative stimulus
49. partial; resistant to extinction
50. pill
51. fixed ratio; fixed interval
52. Attention; negative attention
53. consistency
54. Graubard and Rosenberg
55. instinctive drift
56. behavioral engineering
57. 70; competent

Self Test

1. being bitten
2. the dog that bit them
3. fear of the dog that bit them
4. (a) stimulus generalization
5. (c) stimulus discrimination
6. (b) conditioned emotional response
7. (a) learned reflexes
8. (b) CS-UCS
9. (b) UCS
10. (a) shaping
11. True
12. a fixed interval 100 schedule of reinforcement where the first response after 100 units of time have passed is rewarded
13. (a) CS—white rat
(b) UCS—loud noise
(c) UCR—startle, fear
(d) CR—fear of white rat
(e) generalization—fear of all white, furry objects
(f) CER—fear attached to all white, furry objects
14. False
15. conditioned stimulus
16. (b) be consistent in giving and withholding rewards
17. False
18. (c) it was a naturally elicited, reflex response
19. True
20. (b) extinction
21. (c) a decrease in the response
22. (b) shaping
23. (d) slower extinction
24. (b) generalization and extinction
25. (d) variable ratio
26. (c) spontaneous recovery
27. (b) vicarious conditioning
28. (a) stimulus generalization
29. (a) conditioned emotional response

CHAPTER 9

Programmed Review

1. responsive learning environment
2. typewriter; letters; words, sentences, and stories
3. instinctual
4. innate
5. reflex
6. fixed action pattern; FAP
7. reject; species specific
8. Learning; past experience
9. reinforcement
10. reinforcer; increases
11. Positive
12. Negative
13. Primary; food, water or sex
14. stimulation
15. Secondary
16. associated
17. exchanged
18. chips
19. generalized
20. short
21. delayed
22. anticipate
23. chain
24. superstitious
25. appear
26. feedback
27. knowledge of results, or KR
28. programmed instruction
29. small steps; minimizes
30. computer-assisted; CAI
31. analyze
32. rate; blood; oxygen
33. biofeedback
34. meditation
35. signal
36. feedback or reward
37. 20
38. pressure, blood flow; contractions
39. migraine headaches
40. general relaxation
41. electroencephalograph; EEG
42. light or tone
43. pleasure
44. timing, consistency, and intensity
45. immediately

46. Severe; suppresses
47. reappear
48. reward; nonreward; punishment
49. incompatible
50. aversive
51. Escape
52. avoidance
53. fear
54. aggression
55. attaching
56. frustration
57. cognitive
58. memory, thinking; concepts and language
59. cognitive map
60. latent learning
61. anticipation
62. learning set
63. learning to learn
64. understanding; rote
65. modeling or observational
66. responses; general rule
67. attention; remember; reproduce
68. successful or rewarded
69. attractive, rewarding, prestigious
70. slightly
71. parent's
72. Motor
73. chain
74. better
75. reminiscence; fatigue
76. spaced; massed
77. lifelike; correct responses; verbal rules
78. units; natural units
79. Positive
80. graduated length
81. negative transfer
82. remove, avoid, or delay
83. new
84. avoid or narrow
85. incompatible response
86. Negative practice
87. 80; six
88. 15,000; 18,000
89. aggressively
90. sensitivity
91. positive

Self Test

1. True
2. (a) at least as complex as a FAP; (d) be species specific
3. (a) feedback; (c) reinforcement; (d) practice; (f) KR
4. (a) blood pressure; (e) heart rate;
(b) frequency of stomach contractions; (g) blood flow to the stomach or kidneys;
(c) brain wave patterns; (h) muscle tension
5. (c) EEG
6. (b) primary
7. (a) secondary
8. (c) money
9. False
10. False
11. False
12. (a) suppresses
13. (b) incompatible
14. False
15. (a) aggression
16. True
17. (c) reminiscence
18. False
19. (1) practice should be as lifelike as possible so that artificial habits and "wrong" stimuli do not become part of the skill;
(2) someone experienced in the skill should direct attention to correct responses when they occur so you know how it looks and feels;
(3) learn verbal rules to back up motor learning;
(4) begin by learning units that can be practiced with some success;
(5) when possible, it is better to practice natural units, rather than breaking the task into artificial parts
20. (a) Latent
21. (a) cognitive maps
22. (c) Bandura
23. (a) whether the model was rewarded or punished for the response;
(b) models who are rewarding, prestigious, or competent;
(c) models who possess high status;
(d) models who have control over rewarding resources
24. (b) negative practice
25. (d) KR
26. (c) negative transfer
27. (d) negative reinforcement
28. False
29. True
30. True

CHAPTER 10**Programmed Review**

1. tip-of-the-tongue
2. recognition
3. recall
4. essay
5. recognition
6. relearning
7. 25
8. redintegration
9. personal experiences; formal learning
10. Eidetic imagery
11. less
12. language
13. internal images
14. important; trivial
15. nonsense syllables
16. curve of forgetting
17. rapid; levels off
18. spaced review
19. 30
20. sensory; super short-term; SSTM
21. second
22. Selective attention
23. short-term; STM; working
24. brief
25. permanently lost
26. interruption or interference
27. long-term; LTM
28. limitless
29. seven bits
30. digit-span
31. chunks
32. Coding
33. rehearsal
34. revised
35. organized; structured
36. memory traces
37. short-term; long-term
38. available; accessible
39. interfere
40. asleep
41. retroactive inhibition
42. new; old
43. proactive inhibition
44. old; new
45. repression

46. suppression
47. Flashbulb memories
48. ACTH
49. retrograde amnesia
50. consolidation
51. electroconvulsive shock
52. shocked
53. hippocampus; temporal
54. new memories
55. metrazol, strychnine, nicotine, caffeine, and amphetamine
56. ribonucleic acid
57. engram
58. planaria (flatworms)
59. plain water
60. transfer of memories
61. learning
62. feedback
63. recitation
64. 80; 20
65. overlearning
66. selective
67. Spaced; massed
68. Organizing
69. meaningful
70. serial position
71. sleep
72. review
73. Mnemonics
74. 72; 28
75. mental pictures
76. meaningful
77. familiar
78. bizarre, unusual, or exaggerated
79. form a chain
80. mental walk
81. system

Self Test

1. (b) recognition
2. False
3. (d) reintegration
4. (a) LTM; (d) SSTM; (e) working memory; (f) STM; (h) sensory memory
5. (a) looking up a telephone number and remembering it while you dial
6. (e) develop a curve of forgetting
7. (c) 7
8. (a) coding the information into more easily remembered units;
(e) rehearsing the items;
(f) learning the information in an environment where there is little distraction or interference;

- (h) chunking the information into more easily remembered categories
9. False
 10. False
 11. (a) retroactive inhibition
 12. False
 13. (a) repression
 14. (d) how information is transferred from short-term memory to long-term memory
 15. (b) ECS
 16. False
 17. (c) the middle part
 18. True
 19. (b) rehearsal
 20. (c) digit-span
 21. True
 22. True

CHAPTER 11**Programmed Review**

1. internal representation
2. delayed response
3. ten seconds
4. five minutes
5. trial and error learning
6. variation; internally symbolize; detour
7. insight
8. reorganization; elements; self-evident
9. Sultan; multiple-stick
10. implicit trial and error; symbolically
11. language
12. American Sign Language
13. 175; six-word
14. 130; plastic chips
15. compound sentences; conditional relationships
16. computer keyboard
17. 170
18. past events and feelings
19. 95
20. muscular responses
21. Images
22. concepts
23. language; words
24. synesthesia
25. muscular imagery; implicit actions
26. kinesthetic
27. muscular tension
28. arm
29. 80; 30
30. class; abstract
31. conjunctive concept
32. Relational; relationship; relationship
33. Disjunctive concepts
34. denotative; connotative
35. semantic differential; good-bad, strong-weak and active-passive
36. possibilities
37. symbols
38. phonemes; morphemes
39. grammar
40. syntax
41. transformation
42. meaning
43. three seconds
44. short-term
45. encoded

46. semantics
47. linguistic determinism
48. Mechanical; rote
49. rules
50. understanding
51. general properties; functional solutions
52. fixation
53. functional fixedness
54. inductive; deductive; logical; illogical
55. fluency, flexibility, and originality
56. Fluency
57. Flexibility
58. Originality
59. divergent; convergent thinking
60. Unusual Uses Test
61. Consequences Test
62. Anagrams Test
63. orientation
64. Preparation
65. incubation
66. illumination
67. verification; incubation
68. no difference
69. knowledge and interests
70. openness
71. symbolic thought; concepts
72. independence; complexity
73. mental set
74. logical reasoning
75. syllogism
76. validity; truth
77. oversimplification
78. all-or-nothing; stereotypes
79. develop a knowledge base
80. create the right atmosphere
81. incubation
82. varied input
83. randomly; relate
84. analogies
85. Brainstorming
86. cross-stimulation
87. criticism; modification; quantity; unusual, remote
88. (2) Adapt; (3) Modify; (4) Magnify; (6) Substitute; (7) Rearrange; (8) Reverse
89. vocational; sex; money; achievement
90. one-fourth; sex
91. conquering hero; suffering martyr
92. distracting
93. negative
94. pleasant
95. achievement
96. creativity

Self Test

1. (a) rigid mental set; (d) oversimplification; (e) problems with logic
2. False
3. (a) delayed response
4. (b) synesthesia
5. (b) create the right atmosphere; (e) develop a knowledge base; (e) allow time for incubation; (f) seek varied input; (h) look for analogies
6. True
7. True
8. (a) conjunctive
9. (b) unusual, remote, or wild ideas are sought;
(e) modification or combination with other ideas is encouraged;
(d) quantity of ideas is sought;
(h) criticism of an idea is barred
10. (a) denotative meaning
11. (d) communication
12. (b) linguistic determinism
13. (a) functional fixedness
14. True
15. (d) illogical
16. (d) Semantic Differential Test
17. (1) b. orientation
(2) d. preparation
(3) e. incubation
(4) e. illumination
(5) a. verification
18. (d) photographs
19. (b) phonemes
20. (d) morphemes
21. True
22. False
23. (e) fixation
24. (e) syllogism
25. False

CHAPTER 12

Programmed Review

1. Motivation
2. need
3. drive
4. response; goal
5. need reduction
6. external stimuli
7. incentive value
8. need; incentive
9. primary motives
10. hunger, thirst, pain avoidance; air, sleep, elimination of wastes; body temperature
11. Stimulus motives; innate; survival
12. activity, curiosity, exploration, manipulation, and physical contact
13. learned or secondary
14. affiliation, approval, status, security, and achievement
15. fear and aggression
16. homeostasis
17. thermostat
18. Cannon and Washburn
19. hunger pangs
20. distended
21. sensory nerves
22. central
23. sugar
24. hypoglycemia
25. liver
26. hypothalamus
27. feeding center
28. electrically stimulated; destroyed
29. satiety center
30. overeat; obesity
31. fat
32. set-point; proportion
33. inherited; early
34. more; larger
35. hunger; feelings
36. external
37. attractiveness; amount of effort
38. 5; 100
39. cultural factors
40. taste
41. taste aversion; biological predisposition
42. bait shyness
43. specific hungers
44. self-selection feeding
45. cod-liver oil

46. calcium
47. learned
48. hypothalamus
49. salty
50. episodic
51. learned; did not feel; know what
52. hormones
53. estrus; estrogen
54. castration
55. nonhomeostatic
56. arousal; reduction
57. reward
58. complex
59. Arousal
60. arousal theory
61. curiosity; stimulation
62. Sensation-Seeking Scale
63. extraverted, independent; sexual; smoke
64. orderly, nurturant, giving
65. moderate; Yerkes-Dodson Law; inverted U function
66. internalized standard of excellence
67. imagery
68. moderate
69. demanding; self-reliance; independent
70. fear of success
71. 65
72. 9
73. seventh; tenth
74. hierarchy
75. physiological
76. safety and security
77. basic; growth; love and belonging; esteem and self-esteem; self-actualization
78. meta-needs; ten
79. 20
80. eating habits; external stimuli
81. behavioral dieting; 5
82. diary; calories
83. portions; alone
84. avoiding; interrupt; night-eating
85. Delay
86. increase; reduce
87. people
88. rewards; punishments
89. Chart
90. Intrinsic motivation; extrinsic motivation
91. less
92. extrinsic
93. job enrichment
94. Biorhythm theory; 23; 28
95. correlation

- 96. circadian rhythms
- 97. temperature; pressure; volume; liver and kidneys
- 98. jet lag
- 99. errors; performance
- 100. two weeks

Self Test

- 1. (c) drive
- 2. False
- 3. (c) incentive value
- 4. (a) observe your eating habits and keep a diet diary; (c) weaken personal eating cues; (e) involve other people in your program; (f) chart your progress daily; (g) make a list of rewards you will receive for change
- 5. (a) primary
- 6. (b) stimulus
- 7. (b) homeostasis
- 8. False
- 9. (d) basic, growth, meta
- 10. False
- 11. (c) sex
- 12. (c) specific hunger
- 13. (d) intrinsic motivation
- 14. (a) task difficulty, arousal level
- 15. (b) moderate
- 16. True
- 17. (d) parental attitudes
- 18. (a) SSS
- 19. True
- 20. (b) need for affiliation; (d) fear; (f) aggression
- 21. (a) the hypothalamus
- 22. True
- 23. False
- 24. (c) high
- 25. True
- 26. (a) the cycles of our bodies' internal clocks

CHAPTER 13

Programmed Review

1. emotion
2. reaction
3. parasympathetic nervous system
4. hypothetical constructs
5. subjective feelings; intensity, pleasantness or unpleasantness, and complexity
6. emotional expressions
7. physiological changes
8. heart rate, blood pressure, perspiration
9. adrenalin
10. interpretation
11. James-Lange
12. Cannon-Bard
13. Schachter; cognitive theory
14. correctly informed
15. uninformed or misinformed
16. attribute
17. artificial heartbeat
18. more
19. intensify
20. autonomic nervous system
21. sympathetic, parasympathetic
22. sympathetic; emergency action; "fight or flight"
23. parasympathetic; reverse; bodily energy
24. slowly; 20 or 30
25. sympathetic activation
26. half
27. polygraph
28. heart rate, blood pressure, breathing rate; galvanic skin response
29. nervousness detector
30. series; inaccurate
31. 90 to 95; 25
32. 10; toe muscles
33. voice stress analyzer
34. 50 to 60
35. rage, fear, and joy
36. joy and fear; guilt
37. General excitement
38. two
39. pleasant and unpleasant
40. same
41. Charles Darwin
42. joy, sadness, disgust
43. smiling
44. kinesics
45. emotional tone

46. pleasantness-unpleasantness, attention-rejection, and activation
47. relaxation or tension, and liking or disliking
48. primary appraisal; secondary appraisal
49. Subincision
50. four
51. emphasizing traumatic; increase
52. reduced
53. realistic
54. moderate
55. learned helplessness
56. unescapable
57. depression
58. Outward Bound
59. 4
60. occurrence; circumstances
61. one-third
62. thanatologist
63. denial and isolation, anger, bargaining, depression; acceptance
64. 78
65. one-quarter
66. stress; career choice
67. isolation and loneliness
68. studying and grades
69. intimate relationship
70. negative
71. self-criticism and self-blame
72. negative
73. future
74. overwhelming
75. daily schedule
76. rational
77. helplessness and despair
78. concentrate
79. eating, sleeping, and sex; illness
80. self-esteem
81. Withdrawal
82. suicide
83. Hypersensitivity; irritability
84. anger
85. guilt
86. dependency
87. pupillometrics; diameter
88. enlargement; constriction
89. arousal, interest, or attention
90. total evaluation technique; TET
91. galvanic skin; pupil
92. interpret
93. belladonna
94. larger

Self Test

1. (c) overreaction of parasympathetic nervous system
2. False
3. (a) James-Lange
4. False
5. (a) Cannon-Bard
6. False
7. (b) autonomic nervous system
8. (a) acceptance; (d) bargaining; (e) anger; (g) denial and isolation;
(h) depression
9. False
10. (d) brain waves
11. (e) 24 months
12. (c) excitement
13. False
14. (a) smiling
15. (d) hope-disappointment
16. False
17. (a) cannot be controlled by the individual
18. (a) 4
19. (a) withdrawal from others;
(b) misdirected and self-directed anger;
(c) feelings of guilt in many situations;
(f) hypersensitivity to words and actions of others;
(g) loss of self-esteem; questioning of personal worth
20. (a) thanatologist

CHAPTER 14**Programmed Review**

1. negative; goal
2. Aggressive
3. Conflict
4. Stress
5. Frustration and conflict
6. External
7. delay, failure, rejection, loss
8. strength, urgency, or importance
9. Repeated
10. Personal
11. Internal
12. persistence
13. displaced
14. chains
15. scapegoating
16. escape
17. apathy; use of drugs
18. anxiety
19. defense mechanisms
20. denial
21. death, illness
22. repression
23. Reaction formation
24. Regression
25. children
26. Projection
27. rationalizing
28. compensation
29. Compensatory
30. sublimation
31. frustration
32. approach-avoidance
33. avoidance-avoidance
34. freeze
35. leaving the field
36. approach-avoidance
37. ambivalent
38. partial
39. double approach-avoidance
40. vacillate
41. executive
42. responsibility; emotionally responsive
43. Pressure
44. underload; control
45. lower

46. concentration; frustrated
47. predictability; ulcers
48. psychosomatic
49. hypochondria
50. asthma, eczema; migraine; rheumatoid arthritis; colitis; heart
51. one-half
52. general adaptation syndrome
53. alarm reaction
54. adrenaline and noradrenaline
55. headache, fever, fatigue
56. stage of resistance
57. infection
58. psychosomatic disorders
59. stage of exhaustion
60. adrenal glands; thymus, spleen and lymph nodes; stomach ulcers
61. illness
62. change
63. Social Readjustment Rating Scale
64. life change units
65. 300
66. Type A; Type B
67. twice
68. chronic sense of time urgency
69. stereotyped response
70. failure
71. flexible
72. source
73. hasty; partially; compromises
74. future shock
75. rate; accelerating
76. culture shock
77. transience
78. Novelty
79. diversity

Self Test

1. (a) external
2. (c) denial
3. (a) migraine headaches; (b) stomach ulcers; (d) high blood pressure; (f) asthma;
(h) eczema
4. (b) repression
5. (c) avoidance-avoidance conflict
6. (a) approach-approach conflict
7. (c) reaction formation
8. False
9. (c) displaced
10. (b) scapegoats
11. (a) 300

- 12. False
- 13. True
- 14. (d) regression
- 15. (a) Projection
- 16. True
- 17. (a) rationalize
- 18. (a) partial approach
- 19. (a) personal conflicts
- 20. True
- 21. (a) compensation
- 22. (a) Sublimation
- 23. (b) relativity

CHAPTER 15**Programmed Review**

1. Developmental psychology
2. neonate; grasping
3. rooting
4. sucking
5. Moro
6. mimics
7. 3 to 8; connected
8. actions
9. looking chamber
10. images
11. complex; simpler
12. circularity and curves; red and blue
13. human
14. familiar; unfamiliar
15. two
16. two
17. complex; familiar; unusual
18. nature vs. nurture
19. chromosomes
20. human growth sequence
21. inseparable; interaction
22. temperament
23. easy; 40
24. Difficult; 10
25. Slow to warm up; 15
26. irritability, activity, or attentiveness
27. active participants
28. heredity, environment; behavior
29. 15
30. Maturation
31. rate; order
32. head to toe; center; extremities
33. one
34. six to eight
35. six; grasp; smile, laugh, sit up; babble
36. one
37. $1\frac{1}{2}$ to 2; 24 to 200
38. telegraphic speech
39. 8,000; 4,000
40. Psycholinguists; biological predisposition
41. patterns
42. self-awareness
43. nine; second
44. 18
45. readiness

46. motor primacy; practice
47. one
48. intrauterine; congenital problem
49. genetic problems
50. morphine, heroin, or methadone
51. anesthetics, cortisone, tetracycline; A, D, B₆, and K; barbiturates; sex hormones; aspirin
52. fetal alcohol syndrome
53. heart rate; abortion
54. premature birth; underweight
55. adrenaline
56. three
57. super; smothering; almost; overwhelmed; zoo-keeper
58. playmate; four or five
59. attentive; tactile; unusual play
60. Critical periods
61. thalidomide
62. imprinting
63. 30
64. emotional attachment
65. six; stranger anxiety
66. separation anxiety
67. eight to twelve
68. sexual
69. 26
70. warm, loving
71. feral children; deprivation
72. deprivation dwarfism
73. hospitalism
74. perceptual stimulation; anaclitic
75. contact comfort
76. 20
77. colostrum
78. enriched; 1½
79. 50; eight
80. abstract
81. permanence
82. transformations
83. stages; prerequisite
84. sensorimotor; two
85. object permanence; 1½; 2
86. preoperational; symbolically
87. egocentric
88. 7 to 11; concrete operational; conservation
89. Categories and principles
90. formal operations; 11; abstract principles
91. statistical; particular
92. averages
93. five
94. two; eleven

- 95. accommodation
- 96. novel, unusual, or challenging
- 97. active
- 98. classify
- 99. inconsistency
- 100. hypotheses
- 101. billions
- 102. chromosomes
- 103. deoxyribonucleic acid
- 104. Genes; 100,000
- 105. polygenic
- 106. dominant
- 107. recessive
- 108. X; X; Y
- 109. sex-linked
- 110. behavior genetics
- 111. selective breeding
- 112. identical twins; intelligence; mental disorders; temperament
- 113. genetic counseling
- 114. amniocentesis; fifteenth
- 115. eugenics
- 116. genetic engineering
- 117. Cloning
- 118. artificially fertilizing
- 119. blood tests

Self Test

- 1. (b) rooting; (c) sucking; (e) Moro; (g) grasping
- 2. (a) attraction to complex patterns—preference for the familiar—interest in the unusual
- 3. False
- 4. False
- 5. (a) principle of readiness; (b) maturation; (c) principle of motor primacy
- 6. False
- 7. False
- 8. (a) lack of stimulation
- 9. True
- 10. (b) 50
- 11. (a) sensorimotor stage
- 12. (c) concrete operational stage
- 13. (d) formal operations stage
- 14. False
- 15. True
- 16. (a) development of infant vision
- 17. False
- 18. (a) from head to toe
- 19. False

- 20. False
- 21. False
- 22. False
- 23. (b) rooting
- 24. (d) throughout life
- 25. False
- 26. False

CHAPTER 16

Programmed Review

1. infancy, childhood, adolescence, young adulthood, middle adulthood, and old age
2. developmental tasks
3. psychosocial
4. trust or mistrust
5. autonomy vs. shame and doubt
6. autonomy; over-protection
7. initiative vs. guilt
8. initiative
9. middle childhood
10. industry vs. inferiority
11. identity vs. role confusion
12. identity; role confusion
13. 18 to 35; intimacy or isolation
14. 50; middle age; 35 to 60
15. generativity vs. stagnation
16. integrity vs. despair
17. integrity
18. life review
19. Frederick Leboyer
20. immediately after birth
21. emotional bond
22. weight; infections; affection, fondling, and eye-contact
23. longer sentences; questions; language; commands
24. IQs; language tests
25. stress
26. eyes; weight; larger; adrenal-pituitary
27. two
28. sleep disturbances
29. Specific fears
30. overly timid; general dissatisfaction
31. general negativism; two
32. clinging; three
33. reversals or regressions
34. sibling rivalry and rebellion
35. .6; 2 or 3; 8 to 10
36. toilet-training; enuresis; encopresis
37. over-protective
38. anorexia nervosa; adolescent females
39. social event
40. pica
41. delayed speech and stuttering
42. physical; four
43. hyperactivity
44. minimal brain dysfunction; MBD
45. amphetamine and Ritalin

46. one
47. autism; four
48. isolation; mute
49. echolalia
50. sensory blocking; sensory spin-out
51. detached, uninterested
52. behavior modification
53. match; babbling meaningless; operant shaping
54. punishment
55. parental dominance
56. family
57. accomplishment; others
58. Marriages; Extramarital affairs and divorces
59. death; urgent
60. 43 to 50
61. 50
62. one-half
63. decline; failure
64. breaking out
65. menopause
66. estrogen; hot flashes
67. not knowing
68. climacteric
69. 21 million; 40 million
70. Biological aging; 25 to 30
71. five
72. gerontologist; 25
73. overall decline
74. fluid; crystallized
75. disengagement theory
76. activity theory
77. activity theory
78. self-concept
79. Ageism
80. stereotyping
81. 75
82. communication and discipline
83. permissiveness
84. power assertion, withdrawal of love, or child management
85. fear, hatred; defiant, rebellious, and aggressive
86. self-disciplined; anxious, insecure, and dependent
87. low self-esteem; High self-esteem
88. feelings; behavior
89. feelings
90. Parent Effectiveness Training; I; you
91. hospice
92. people; atmosphere; freedom of choice
93. living will
94. passive euthanasia
95. active euthanasia
96. Cryonics

Self Test

1. (a) developmental tasks
2. (1) f. trust vs. mistrust
(2) g. autonomy vs. shame and doubt
(3) e. initiative vs. guilt
(4) b. industry vs. inferiority
(5) e. identity vs. role confusion
(6) h. intimacy vs. isolation
(7) d. generativity vs. stagnation
(8) a. integrity vs. despair
3. (a) faith in the environment and others
4. (c) an integrated image of oneself as a unique person
5. (a) concern for family, society, and future generations
6. (b) Leboyer
7. False
8. (a) two years old
9. (a) three years old
10. (a) sleep disturbances; (b) sibling rivalry; (d) specific fears of the dark, school, etc.; (f) rebellion; (h) reversals to more infantile behaviors
11. (c) 10
12. (b) anorexia nervosa
13. (c) minimal brain dysfunction
14. (a) extreme isolation; (c) retarded language development; (e) sensory blocking; (f) sensory spin-out; (i) repetitive actions
15. (d) pica
16. (d) 25
17. True
18. (c) withdrawal of love
19. True
20. (b) gerontologist
21. True
22. False
23. True
24. (d) activity theory
25. (c) echolalia
26. False
27. False

CHAPTER 17**Programmed Review**

1. idiot savant
2. Alfred Binet
3. purposefully; rationally; environment
4. operational definition
5. procedures; intelligence test
6. reliable
7. test-retest
8. split-half
9. equivalent forms
10. validity
11. face
12. criterion
13. Stanford-Binet Intelligence Scale
14. mental age
15. chronological age
16. IQ or intelligence quotient; mental age; chronological age
17. average
18. 90 to 109
19. six
20. five
21. 20 and 30
22. general information or comprehension
23. speed; insight; flexibility
24. impending death; terminal decline
25. Wechsler Adult Intelligence Scale; WAIS
26. Wechsler Intelligence Scale for Children; WISC
27. performance
28. individual intelligence tests
29. Group intelligence tests; Army Alpha
30. Scholastic Aptitude Test; SAT; American College Test; ACT; College Qualification Test; CQT
31. normal; average; extremes
32. overall; verbal ability, vocabulary, and rote; visualization of spatial relationships and arithmetic reasoning
33. .50
34. 110; 120; 130
35. high-status
36. gifted; genius; Lewis Terman
37. superior
38. Mentally Gifted Minors
39. mentally retarded
40. 70
41. profoundly; severely and moderately
42. mildly
43. 25

44. birth injuries; fetal damage; metabolic disorders; genetic abnormalities
45. familial retardation
46. phenylketonuria or PKU; month; diet
47. microcephalic
48. Hydrocephaly
49. Cretinism; thyroid
50. Down's Syndrome; mongoloids; chromosome
51. 2,000; 40
52. father
53. eugenics
54. maze-bright; maze-dull
55. direct proportion
56. identical twins; .87 to .75
57. Fraternal twins
58. 75
59. 29
60. 26
61. almost perfectly
62. decreases
63. culture-fair
64. 106
65. career success
66. people
67. IQ; intelligence
68. 95; 124
69. Cyril Burt
70. three-tiered

Self Test

1. (c) test-retest reliability
2. (d) operational
3. (b) Stanford-Binet Intelligence Scale
4. (a) chronological age; (c) mental age; (e) overall IQ score; (f) intelligence quotient
5. (b) validity
6. (d) criterion validity
7. True
8. (b) 25
9. True
10. (a) Cyril Burt
11. (c) Terman
12. (a) PKU
13. (c) Cretinism
14. (b) eugenics
15. (b) Mongolism
16. (b) Cyril Burt; (c) William Shockley; (f) Arthur Jensen
17. False
18. False
19. (b) 70
20. False
21. False

CHAPTER 18

Programmed Review

1. hypothetical construct
2. unique and enduring behavior
3. consistency
4. character
5. temperament
6. introvert, extrovert
7. Hippocrates
8. black bile; blood; anger and irritability; phlegm
9. constitutional theory
10. endomorphy
11. Mesomorphy
12. ectomorph
13. somatotype
14. 60; Three
15. Viscerotonica
16. Somatotonica
17. cerebrotonic
18. bias
19. central or determining
20. traits
21. trait theorists
22. Gordon Allport
23. culture
24. unique
25. nomothetic; idiographic
26. Cardinal
27. Central
28. Secondary; food preferences; political opinions
29. Raymond Cattell
30. surface
31. clusters
32. source traits
33. factor analysis; correlations
34. Sixteen Personality Factor Questionnaire
35. trait profile
36. circularity
37. ordinal position
38. eminence; shy; anxious
39. social relationships; original and creative
40. "emotional set"
41. anxious and inconsistent
42. lighter discipline; pampered
43. personality
44. unstructured
45. structured

46. flexible
47. preconceptions
48. personality; actions
49. halo effect
50. direct observation
51. rating scales
52. situational testing
53. Office of Strategic Services
54. questionnaires; objective
55. Minnesota Multiphasic Personality Inventory
56. 550; true or false or cannot say
57. patterns
58. hypochondriasis
59. psychopathic deviancy
60. Psychasthenia
61. Hypomania
62. MMPI profile
63. neurotics; psychotics; antisocial
64. lie scale
65. projective tests; unconscious
66. ambiguous stimulus
67. Rorschach Inkblot Test
68. location, determinants, content
69. Thematic Apperception Test
70. 20
71. content
72. validity
73. reliability
74. battery
75. "sudden murderers"
76. overcontrolled; amnesia
77. undercontrolled; cheated or betrayed
78. good; bad
79. improved
80. review and appeal
81. Bem Sex Role Inventory; androgynous
82. 50; 15; 35
83. adaptable
84. men

Self Test

1. (e) personality
2. (a) Jung
3. True
4. (c) mesomorphy
5. (b) cerebrotonia
6. (d) cardinal
7. (e) secondary

8. (c) Cattell
9. False
10. True
11. (a) interviewer can be swayed by preconception
(b) interviewer's own personality may cause them to accentuate, overlook, or distort qualities of the interviewee
(c) interviewee may be influenced by actions of the interviewer
(d) halo effect
(e) appearance and particularly sex of interviewer may influence interviewee
12. (b) MMPI
13. (c) psychasthenia
14. (b) projective tests
15. (b) Murray
16. (b) content
17. False
18. (c) direct observation
19. True
20. (d) projective tests
21. (b) character
22. (d) direct observations
23. False
24. (c) projective tests
25. True
26. False
27. (a) first
28. False
29. False

CHAPTER 19**Programmed Review**

1. Sigmund Freud
2. physical cause
3. 1890; 1939; psychoanalytic theory
4. id, ego, and superego
5. biological instincts; unconscious
6. pleasure principle
7. libido
8. life instincts
9. death; thanatos
10. sex and aggression
11. primary process thinking
12. executive; id; external reality
13. reality principle
14. secondary process
15. superego
16. conscience
17. guilt
18. ego-ideal
19. pride
20. displaced or sublimated
21. neurotic anxiety; moral anxiety
22. ego-defense mechanisms
23. conscious; preconscious
24. neo-Freudians
25. unconscious; sexuality
26. superiority; inferiority
27. compensate
28. style of living
29. creative self
30. anatomy
31. neurosis; basic anxiety
32. toward, away, against
33. libido
34. ego; persona
35. thinking, feeling, sensing, and intuiting
36. personal unconscious; collective unconscious
37. archetypes
38. anima; animus
39. shadow
40. self archetype; mandalas
41. learned behavior patterns
42. Social learning
43. specific situations
44. radical behaviorism; rewards and punishments
45. habits

46. drive
47. Cues
48. response and reward
49. self-reinforcement
50. subjective experience
51. self-actualization
52. fully functioning
53. self
54. phenomenal field
55. reality
56. self-image
57. symbolized
58. incongruent
59. congruence
60. ideal-self
61. socialization
62. psychosexual stages
63. oral, anal, phallic, and genital
64. erogenous zone
65. fixations
66. oral dependent
67. oral aggressive
68. anal-retentive; anal-expulsive
69. Oedipus conflict
70. castration; identify; conscience
71. Electra conflict
72. phallic
73. latency
74. adult personality
75. feeding, toilet-training; sexual
76. stages
77. feeding, toilet; sex; anger or aggression
78. identification and imitation
79. same-sex
80. Albert Bandura; vicariously
81. three
82. arm's reach
83. conditions of worth
84. positive self-regard
85. organismic valuing
86. life experiences
87. sex and aggression
88. after; future
89. behaviorists
90. narrow
91. precision
92. process
93. change
94. take responsibility
95. motives

96. honestly and directly
97. "peak experiences"
98. different
99. mission or "calling"
100. hurrying or overscheduling
101. journal
102. assess; Boredom
103. moral dilemmas
104. preconventional; punishment orientation
105. pleasure-seeking
106. conventional; good boy/girl orientation
107. authority
108. postconventional; social-contract
109. morality of individual principles
110. 20; 5 to 10

Self Test

1. (a) id; (d) superego; (g) ego
2. (c) habits
3. (a) self-actualization
4. (d) phenomenal field
5. (b) striving for superiority
6. (d) anal-retentive
7. (c) behaviorism
8. (b) ego
9. (b) libido
10. (b) oral aggressive
11. (a) Electra conflict; (c) Oedipus conflict; (d) conscience formation; (e) castration anxiety
12. (a) identification; (d) imitation
13. unconscious, conscious, preconscious; personal unconscious, collective unconscious
14. (a) subjective experience
15. False
16. (d) Karen Horney
17. (b) animus; (d) self; (e) shadow; (g) anima
18. True
19. (b) organismic valuing
20. (b) id
21. (d) guilt
22. False
23. (c) basic anxiety
24. True
25. (c) ego

CHAPTER 20

Programmed Review

1. Psychopathology
2. half
3. 10; 100
4. 30; 12
5. million
6. Diagnostic and Statistical Manual of Mental Disorders; DSM
7. Organic
8. thinking, memory; personality
9. Substance use
10. social, occupational; stop
11. Psychotic
12. Affective; mania; depressed
13. Anxiety; phobias; generalized anxiety
14. obsessive-compulsive
15. Somatoform
16. Dissociative; multiple personalities
17. Personality
18. paranoid; compulsive, aggressive; introverted
19. Psychosexual; gender identity; transsexualism
20. psychosexual dysfunctions
21. anxiety
22. legal
23. subjective discomfort
24. lack
25. statistics
26. normal curve
27. deviation; norm
28. normality and abnormality
29. Social nonconformity; socialization
30. context
31. culture
32. relative
33. sociopath or psychopath
34. emotional deprivation
35. much less anxiety; underarousal
36. rarely; 30
37. compulsive, destructive, bizarre
38. pedophilia; bestiality; incest; fetishism; exhibitionism; voyeurism; transvestism; sadism; masochism
39. homosexuality; lesbianism
40. five
41. undersexed
42. learned
43. persists in one
44. lowest

45. child molesters
46. forcible rape
47. antisocial personalities
48. non-specific; anticipation
49. neurotic; neurotic
50. 70; 5
51. adjustment disorder
52. combat exhaustion
53. traumatic neurosis
54. rest, sedation
55. false
56. generalized anxiety
57. anxiety attacks
58. free-floating
59. Phobias
60. aerophobia; agoraphobia; claustrophobia; nyctophobia; pathophobia; zoophobia
61. agoraphobia; 100
62. Obsessions
63. compulsions
64. obsessive-compulsive
65. dissociative reaction
66. Amnesia
67. Fugue
68. Multiple personality
69. hypochondria; somatization disorder
70. Conversion reactions
71. Glove anesthesia
72. faith healers; quacks
73. Sigmund Freud; psychodynamic
74. id, ego, superego
75. id; superego
76. Carl Rogers; self-image
77. meaning
78. courage and responsibility
79. "existential anxiety"
80. Behaviorists; learned
81. neurotic paradox
82. avoidance learning
83. depressive disorders
84. 10 and 20
85. 25
86. lithium carbonate
87. repressed anger
88. seventh; 100
89. May
90. Three
91. 45
92. leading
93. health; interpersonal
94. medicine and psychiatry

- 95. divorced; widowed; married
- 96. aggression
- 97. anomie
- 98. drinking; sexual; job
- 99. eight
- 100. two-thirds; 3 to 5
- 101. rapport
- 102. depression
- 103. sicker; healthier
- 104. maladjusted; negative

Self Test

- 1. (b) 1/2
- 2. (b) Organic mental
- 3. (d) Somatoform
- 4. (d) Dissociative
- 5. False
- 6. False
- 7. True
- 8. False
- 9. (a) subjective discomfort; (c) statistical; (d) social nonconformity
- 10. (d) Conversion reactions
- 11. False
- 12. (b) sociopathic
- 13. (c) emotional deprivation and disregard
- 14. (b) bestiality
 - (c) incest
 - (a) pedophilia
 - (d) fetishism
 - (h) masochism
 - (i) sadism
 - (f) voyeurism
 - (g) transvestism
 - (e) exhibitionism
- 15. True
- 16. (a) 5
- 17. lowest
- 18. False
- 19. False
- 20. True
- 21. True
- 22. (a) traumatic neurosis
- 23. False
- 24. (b) anomie
- 25. (f) zoophobia
 - (a) aerophobia
 - (b) agoraphobia
 - (c) pathophobia
 - (c) claustrophobia
 - (d) nyctophobia

- 26. True
- 27. (d) conversion reaction
- 28. (b) dissociative disorders
- 29. (b) obsessions
- 30. (c) compulsions
- 31. (a) 25
- 32. (a) avoidance learning
- 33. (c) self-image
- 34. False

CHAPTER 21**Programmed Review**

1. Psychosis
2. delusions
3. depressive
4. somatic
5. grandeur
6. influence
7. persecution
8. reference
9. Hallucinations; absence
10. hearing voices
11. anesthesia
12. Disturbed emotions
13. personality disintegration
14. episodes
15. amazingly free
16. communication
17. organic psychosis
18. functional psychosis
19. general paresis
20. inhibition
21. lead and mercury
22. senile psychosis; senile dementia
23. memory; judgment, impulse
24. paranoia
25. hallucinations; disintegration
26. rarely
27. schizophrenia
28. 100; one-fourth
29. split-mind; thought and emotion
30. Borderline or simple
31. schizotypal
32. hebephrenic schizophrenia
33. catatonic schizophrenia
34. waxy flexibility
35. Mutism
36. paranoid schizophrenia
37. personality disintegration
38. undifferentiated schizophrenia
39. one-half
40. affective psychosis
41. mood, emotion
42. manic
43. depressive; manic-depressive or mixed
44. escape
45. position of checkmate

46. double bind
47. potential
48. 50
49. 45; 17; 10; 12
50. biochemical abnormalities
51. noradrenaline and dopamine
52. LSD
53. phenothiazines
54. adrenochrome
55. mescaline
56. dopamine
57. amphetamine
58. antipsychotic
59. double; receptors
60. psychotherapy
61. somatic; bodily
62. chemotherapy
63. psychosis
64. minor tranquilizers, major tranquilizers (antipsychotics), and energizers
65. calm; mood; hallucinations
66. cure
67. 10; tardive dyskinesia
68. overused
69. enkephalins; endorphins
70. limbic-dopamine
71. electroconvulsive therapy; ECT
72. depression
73. 150; 6 to 8; 3 to 4
74. memory losses; brain damage
75. sedation; relaxants; oxygen
76. psychosurgery
77. prefrontal lobotomy
78. calm
79. irreversible
80. 400; voluntary, informed; courts; surgical review board
81. two-thirds; revolving-door
82. community mental health centers
83. prevention
84. paraprofessionals
85. 11; schizophrenia
86. 11.3; seven
87. 41; 19
88. labels; problems
89. "medical model"
90. "problems in living"
91. 90
92. Kingsley Hall
93. relationship

Self Test

1. (a) depressive delusion
(c) delusion of grandeur
(b) somatic delusion
(e) delusion of persecution
(d) delusion of influence
(f) delusion of reference
2. (a) hearing voices
3. (d) tardive dyskinesia
4. True
5. (a) schizotypal personality disorders
6. (a) organic psychosis
7. (b) minor tranquilizers; (c) anti-psychotics; (e) energizers; (g) major tranquilizers
8. False
9. True
10. (c) 14
11. manic type; depressive type; manic-depressive (mixed) type
12. False
13. (b) 1/2
14. (a) simple
15. (b) hebephrenic
16. False
17. (c) catatonic
18. (d) paranoid
19. False
20. False
21. (a) dopamine-limbic
22. (b) depression
23. (b) 50%
24. (b) phenothiazines
25. False
26. (a) only temporarily relieves symptoms; (b) drug side-effects; (c) overuse
27. True
28. (a) position of checkmate; (d) double bind communication
29. True
30. False
31. True
32. False
33. (d) 90
34. (a) 1
35. (a) adrenochrome
36. False
37. (a) senile psychosis

CHAPTER 22**Programmed Review**

1. Psychotherapy
2. Insight
3. Action
4. directive
5. Non-directive
6. Individual
7. group
8. trepanning
9. demonology; exorcism
10. Phillippe Pinel; unchaining
11. Sigmund Freud
12. hysteria
13. psychoanalysis
14. repressed
15. free association
16. lower defenses
17. dream analysis
18. manifest; latent
19. dream symbols
20. resist; resistances
21. transfer
22. reeducation
23. three to five; seven
24. effectiveness
25. spontaneous remission
26. adjustment; potentials
27. client-centered
28. non-directive
29. unconditional positive regard
30. empathy
31. authentic
32. reflects
33. rational-emotive; RET
34. unrealistic
35. emotional consequence; activating experience
36. direct
37. Existential
38. free will
39. Rollo May
40. logotherapy
41. Nazi concentration camp
42. confrontation; encounter
43. group therapy
44. psychodrama
45. Frederick (Fritz) Perls

46. Gestalt
47. present
48. 1945; National Training Laboratories
49. T-groups
50. Sensitivity; encounter
51. marathon
52. defenses and facades
53. facilitators
54. Transactional Analysis
55. ego-states
56. Child
57. Parent
58. Adult
59. crossed
60. ulterior
61. games
62. life scripts
63. positive effect
64. caring relationship
65. emotional rapport
66. catharsis
67. explanation or rationale
68. physical
69. significant changes
70. objectively
71. suicidal
72. "yellow pages"
73. community or county mental health
74. mental health associations
75. newspaper advertisements
76. techniques; therapists
77. unconditional acceptance; empathy
78. active listening
79. feelings
80. advice
81. reference
82. feedback
83. confidentiality
84. computer program
85. cost, convenience, consistency

Self Test

1. (a) demonology
2. (b) Pinel
3. (b) analysis of transference; (d) analysis of resistance; (e) dream analysis;
(h) free association
4. (d) non-directive
5. (b) action

6. False
7. (a) client-centered
8. (d) Rogers
9. (d) existential
10. (a) adjustment
11. False
12. (c) want to do
13. True
14. False
15. (a) Gestalt
16. False
17. (c) existential
18. (b) transactional analysis
19. False
20. False
21. (b) hysteria
22. False
23. (b) Berne
24. True
25. True
26. True

CHAPTER 23**Programmed Review**

1. behavior therapists; behavior
2. learned
3. unlearn; relearn
4. classical or operant
5. Pavlov
6. conditioned stimulus; unconditioned stimulus; unconditioned response
7. conditioned response
8. aversion
9. aversion therapy
10. conditioned aversion
11. antabuse
12. electric shock
13. response-contingent
14. transfer or generalize
15. bar
16. blood alcohol
17. videotaped
18. Desensitization
19. hierarchy; adapt
20. reciprocal inhibition
21. prevent
22. counter-condition; phobias
23. construct a hierarchy
24. exercises; total relaxation
25. perform the least
26. vividly imagines
27. vicarious desensitization
28. implosive therapy
29. flooded
30. operant; B. F. Skinner
31. positive reinforcement
32. nonreinforcement
33. extinction
34. punishment
35. Shaping
36. stimulus control
37. time-out
38. identifying and removing
39. attention, approval, and concern
40. increased
41. ignored; decreased
42. time out
43. remove
44. tokens
45. target behaviors

46. token economy
47. social rewards
48. three or four cartons
49. covert sensitization
50. thought-stopping
51. 10 to 20
52. relaxation
53. ten
54. twice
55. three
56. target
57. baseline
58. goals
59. reinforcers
60. record
61. reward
62. record-keeping
63. behavioral contract
64. rational and orderly
65. symptoms; causes; symptom; learning

Self Test

1. (b) habits that cause problems are learned and therefore can be unlearned
2. (b) unconditioned stimulus
3. (d) unconditioned response
4. (a) conditioned stimulus
5. (c) conditioned response
6. (a) Vogler
7. True
8. (c) implosive therapy
9. (a) response
10. (d) reciprocal inhibition
11. (b) Behavioral contracts
12. (b) phobia
13. True
14. True
15. False
16. (a) ignore the child when they misbehave
17. True
18. (a) tokens
19. False
20. (b) target behaviors
21. (d) stimulus control
22. False
23. (d) difficulties of generalization from the therapy setting to the real world
24. True
25. True

CHAPTER 24**Programmed Review**

1. Primary sexual characteristics
2. penis, testes, and scrotum
3. ovaries, uterus, and vagina
4. Secondary sexual characteristics
5. breasts; hips
6. hair; voice
7. menarche
8. menopause
9. sex hormones
10. gonads
11. estrogens; androgens
12. testes; ovaries
13. adrenal
14. testosterone; androgens
15. Genetic sex
16. X
17. female
18. genitals
19. androgen insensitivity
20. hermaphroditism
21. progesterin
22. androgenital syndrome
23. brain
24. learned
25. biasing effect
26. athletic; achievement-oriented; marriage; romance
27. gender identity
28. three or four; eighteen
29. sex-role socialization
30. sex roles
31. pattern of behavior
32. Ethel Albert
33. 75
34. Margaret Mead's
35. reversal
36. instrumental; emotions
37. expressive; maternal
38. "feminine"
39. "not female;" effeminacy
40. birth
41. orgasm; five months; four months
42. two to five
43. 50; 25
44. erogenous zones
45. men

46. visual; romance
47. subjective reactions
48. physical
49. no less; more likely
50. 18
51. 30
52. androgen
53. increased
54. 85; 35
55. reduction; no change
56. depressant; inhibitions; negative
57. castration; inexperienced
58. vary
59. regularity; 40 to 50
60. Masturbation
61. 60; 95
62. 45; 63
63. 15; 33
64. 70
65. 85; 65
66. excitement, plateau, orgasm, and resolution
67. erection; penis
68. heart rate; blood flow; testicles; nipples
69. ejaculation; refractory period
70. nipples; pulse rate; flushed
71. three to ten; ejaculation
72. orgasm and resolution
73. plateau
74. no difference
75. vagina
76. two-thirds
77. 26
78. ten to twenty; four
79. simultaneous orgasm
80. 70; clitoris
81. much less
82. five
83. 88; 68; 48
84. 80; 40; 36
85. 28
86. 50; 20
87. 71; 33; 97; 70; 93
88. females
89. higher; greater
90. one; six
91. Impotence; primary impotence; secondary impotence
92. 25
93. religious; mother
94. premature ejaculation
95. sensate focus

96. premature ejaculation
97. reflexively
98. squeeze technique
99. retarded ejaculation
100. general sexual dysfunction; frigidity
101. "nondemanding"
102. orgasmic dysfunction; over-control
103. vaginismus
104. phobia
105. communication
106. "gunnysacking"
107. feelings
108. character; blame
109. win
110. anger
111. opposite sex
112. half; half
113. 13; none

Self Test

1. (a) estrogens
2. (b) androgens
3. False
4. True
5. False
6. False
7. (c) testes
8. (a) ovaries
9. (d) gender identity
10. (c) achieve orgasm
11. False
12. (a) sensate focus
13. (c) 30
14. (c) androgen
15. False
16. True
17. (d) 95
18. (b) squeeze technique
19. False
20. False
21. False
22. True
23. (c) clitoris
24. True
25. True
26. True
27. (d) vaginismus
28. False

- 29. True
- 30. (a) hermaphroditism
- 31. True
- 32. True
- 33. True
- 34. (b) Tehambuli
- 35. (b) androgenital syndrome

CHAPTER 25**Programmed Review**

1. five; seven
2. Social psychology
3. Culture
4. position
5. Roles
6. ascribed
7. Achieved
8. role conflict
9. six
10. status
11. 84; 50
12. 77; 38
13. structure and cohesiveness
14. Organized
15. cohesiveness
16. norms
17. autokinetic effect
18. converge
19. social comparisons
20. Leon Festinger
21. Social comparison theory
22. Interpersonal attractions
23. physical proximity
24. physical attractiveness
25. successful
26. Competence
27. Similarity
28. complementary needs
29. similarity; complementary needs
30. Social exchange
31. gain-loss
32. differed; loving
33. high; low
34. personal space
35. proxemics
36. intimate distance
37. Personal distance; $1\frac{1}{2}$ to 4
38. Social distance; 4 to 12
39. Public distance; 12
40. eye contact
41. combined
42. territory
43. social influence
44. suggestion situations
45. conformity situations

46. group discussion
47. Persuasive messages
48. intensive indoctrination
49. Solomon Asch
50. one-third
51. 75; 1
52. perceptual
53. judgmental
54. action
55. group sanctions
56. size; three
57. unanimity
58. more
59. reward power
60. Coercive power
61. Legitimate power
62. Referent power
63. Expert power
64. authority
65. obedience
66. 65
67. 48
68. 40
69. 30
70. 22
71. 10
72. passivity
73. 80
74. assertiveness training
75. refuse; request
76. self-assertive and aggressive
77. rehearsing
78. role playing
79. overlearning
80. broken record
81. groupthink
82. illusions of invulnerability
83. rationalization
84. Narrowed morality
85. Stereotyped views
86. Conformity pressures
87. Self-censorship
88. Illusions of unanimity
89. "mindguards"
90. critical evaluator; preferences; factually; devil's advocate
91. sober; drunk

Self Test

1. False
2. (a) structure; (c) cohesiveness
3. (a) physical proximity; (b) physical attractiveness; (e) competence; (f) similarity
4. (c) profitable
5. True
6. (b) gains in liking
7. (a) intimate
8. (c) 4 to 12 feet
9. (a) suggestion; (b) conformity; (c) persuasive messages; (e) group discussion; (f) intensive indoctrination
10. (b) 75
11. False
12. True
13. (a) reward; (b) coercive; (d) expert; (e) legitimate; (g) referent
14. (c) proxemics
15. (c) 65
16. False
17. True
18. (d) action
19. True
20. True
21. False
22. False
23. (b) assertiveness training
24. (d) groupthink
25. False

CHAPTER 26**Programmed Review**

1. attitude
2. belief; emotional; action
3. direct contact; interaction; child rearing
4. almost all; excluded
5. rejected
6. Peer group
7. mass media
8. chance conditioning
9. immediate consequences
10. open-ended interview
11. social-distance scale
12. attitude scales
13. reference groups
14. reference
15. Persuasion
16. communicator; message; audience
17. likable, trustworthy, an expert
18. nothing to gain
19. fear and anxiety
20. well; poorly
21. conclusions
22. role-playing
23. reduced; little
24. cognitive dissonance
25. avoid; reject
26. reward or justification
27. enjoyable and interesting
28. captive; isolated
29. dependent
30. reward
31. unfreeze; Change; refreeze
32. 80
33. cult
34. depression, indecision, or alienation
35. belonging
36. affection and understanding; "love bombing"
37. isolation; drills, disciplines, and rituals
38. cognitive dissonance
39. guilt and fear
40. Prejudice
41. racism, sexism, or ageism
42. discrimination
43. 33
44. scapegoating
45. lower

46. Personal prejudice
47. group norms
48. authoritarian personality
49. ethnocentric
50. "F"
51. punished; authority
52. dogmatism
53. more willing
54. stereotyped
55. positive or negative
56. status inequalities
57. equal-status
58. favorable shifts; more
59. Muzafer Sherif
60. subordinate goals
61. 58
62. 1.4
63. "killer instinct"
64. biologically-rooted; inhibit
65. hypoglycemia; allergy; brain
66. threshold
67. arousal
68. stronger
69. social learning theory
70. 54; 40; 70; 18
71. number
72. lower
73. notice; define; responsibility; action
74. few; most
75. no one
76. diffusion of responsibility
77. third
78. more
79. more likely
80. 80
81. nest-building and caring; decreased; mortality
82. aggressive; stress-caused
83. hypersexuality, bisexuality, homosexuality; passivity
84. nutritional, educational, income
85. psychological; density
86. overstimulated; privacy
87. death rates
88. overload
89. interpersonal contacts; nonessential events; cold and unfriendly
90. 72; 46; one-third

Self Test

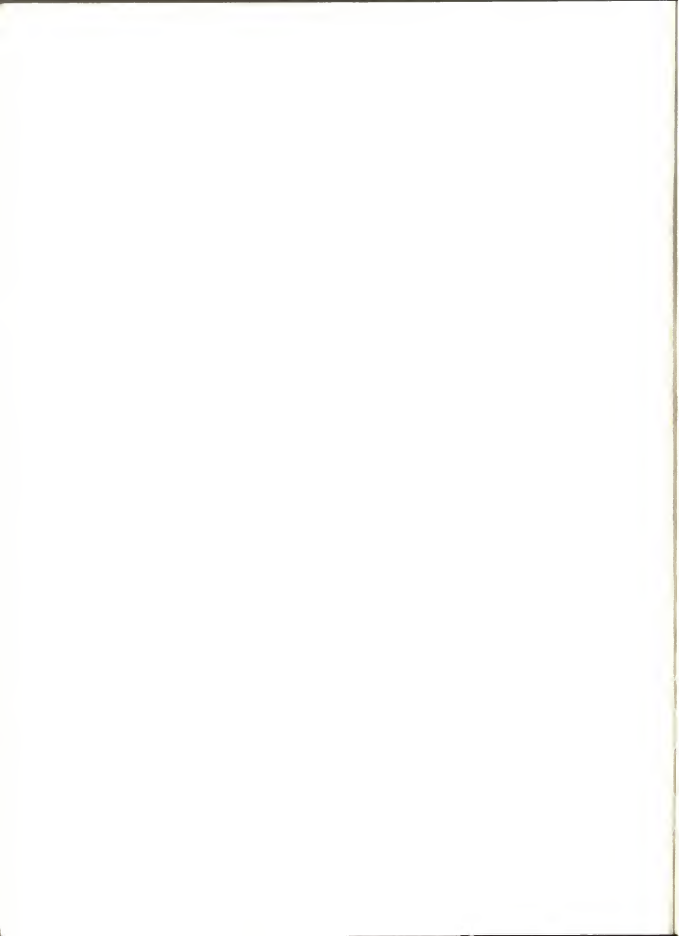
1. (a) emotional; (d) belief; (h) action
2. (a) communicator; (d) audience; (h) message
3. False
4. False
5. True
6. (d) attitude
7. True
8. (a) peer groups; (b) reference groups; (c) chance happenings; (f) child rearing;
(g) mass media
9. True
10. True
11. True
12. (a) open-ended interviews; (b) social distance scales; (e) attitude scales
13. True
14. False
15. False
16. True
17. True
18. True
19. (d) density
20. False

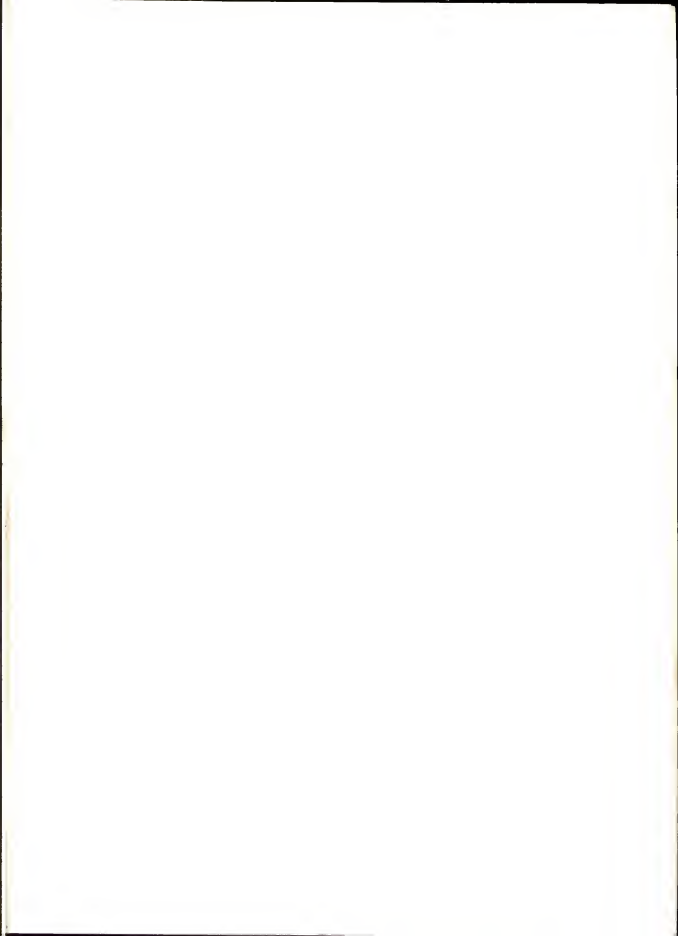
APPENDIX: STATISTICS**Programmed Review**

1. measurement
2. nominal scale
3. ordinal scale; equal
4. interval and ratio
5. equal; zero point
6. equal; arbitrarily
7. descriptive statistics
8. frequency distribution
9. histograms; ordinate; abscissa
10. frequency polygon
11. central tendency
12. mean
13. high or low
14. median
15. ranking
16. averaged
17. mode
18. mode; mean
19. measures of variability
20. range
21. standard deviation
22. deviation; squaring
23. z-score
24. standard deviation
25. normal curve
26. standard deviation
27. 68; 95; 99
28. Inferential statistics
29. population
30. samples
31. representative
32. random
33. statistical significance
34. five
35. probability
36. co-relating
37. correlational methods; coefficient of correlation
38. scatter diagram
39. positive
40. zero
41. negative
42. +1.0; -1.0
43. validity
44. reliability
45. predictions
46. correlation; causation

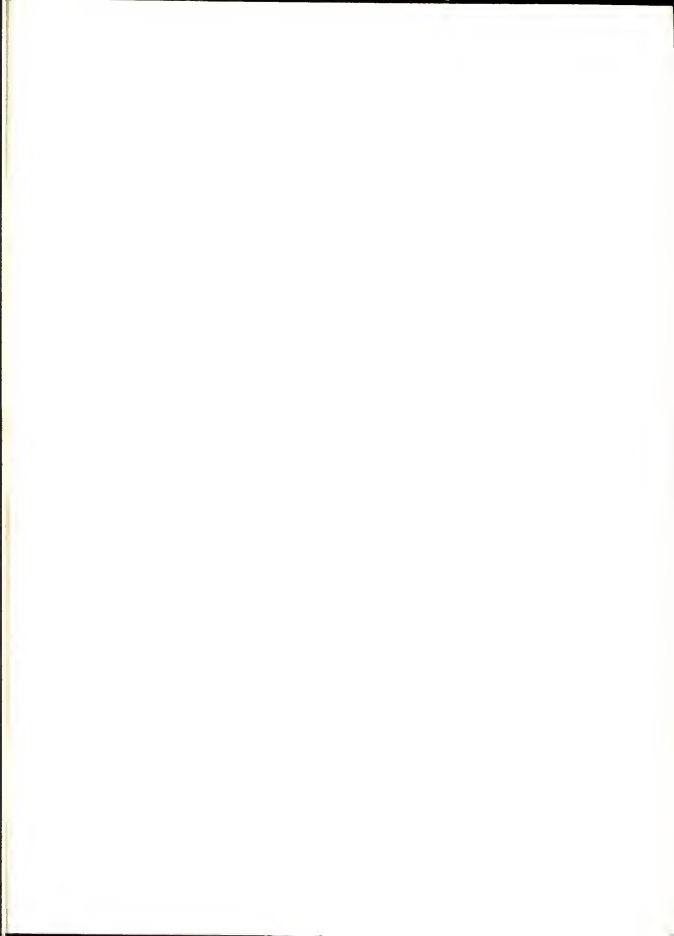
Self Test

1. (a) ratio scale
2. (b) ordinal scale
3. (c) histogram
4. True
5. (d) median
6. (a) mode
7. (b) z-score
8. False
9. (b) zero correlation
10. True
11. (a) 5
12. False









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